Supporting Information Appendix

Reputation and Impact in Academic Careers

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Supporting Text

In Section S1 we describe the data collection. In Section S2 we elaborate the technical methods for calculating the longitudinal productivity and citation trajectories shown in Fig. 1. In Section S3 we provide additional analysis of collaboration metrics. In Section S4 we analyze each scientist's rank-citation profile $c_i(r)$ by estimating the parameters corresponding to the discrete generalized beta distribution (DGBD) model. In Section S5 we elaborate the statistical regression used to estimate the parameters of the reputation model given in Eq. (1) and also elaborate on the Monte Carlo simulation for each synthetic career model we investigate.

S1. DATA

A. Disambiguation strategy

The "disambiguation problem" is a major hurdle in the analysis of careers, as multiple authors who have the same initials, and even complete name, can appear as a single author. Recently several online platforms have been established, e.g. `researcherid.com` (proprietary) and `orcid.org` (non-proprietary), are two promising platforms that allow users to upload and maintain their publication profiles.

Here we use disambiguated "distinct author" data from *Thomson Reuters Web of Knowledge* (TRWOK), `www.isiknowledge.com/` , using their matching algorithms to identify publication profiles of distinct authors. The TRWOK online database is host to comprehensive data that is well-suited for developing testable models for scientific impact [2–4] and career achievement [6, 9]. We seek to compare variations in productivity and impact across distinct scientific fields as well as within fields. To accomplish this, we analyze three set of 100 physicists, allowing for comparison between scientists within a given field, and 100 cell biologists, and 50 mathematicians, allowing for comparison between fields with varying publication rates, financial funding programs, and collaboration/coauthorship styles.

B. Selection of scientists and collection of publication metadata

For the selection of two comparison sets for high-impact physicists, we aggregate all authors who published in *Physical Review Letters (PRL)* over the 50-year period 1958-2008 into a common dataset. From this dataset, we rank the scientists using the citations shares metric defined in [3]. This citation shares metric divides equally the total number of citations a paper receives among the k coauthors, and also normalizes the total number of citations by a time-dependent factor to account for citation variations across time and discipline. Hence, for each scientist in the *PRL* database, we calculate a cumulative number of citation shares received from only their *PRL* publications. This tally serves as a proxy for his/her scientific impact in all journals. The top 100 scientists according to this citation shares metric comprise dataset [A]. As a control, we also choose from our ranked *PRL* list, approximately randomly, 100 additional highly prolific physicists comprising dataset [B]. The selection criteria for dataset [B] is that an author must have published between 10 and 50 papers in *PRL*. This likely ensures that the total publication history, in all journals, be on the order of 100 articles for each author selected. We compare the tenured scientists in datasets A and B with 100 relatively young assistant professors from physics comprising dataset [C]. To select dataset [C] scientists, we chose two assistant professors from the top 50 U.S. physics and astronomy departments ranked according to the magazine *U.S. News*. For the selection of high-impact cell biologists comprising dataset [D] we choose the top 100 careers based

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[1] Published in: Proceedings of the National Academy of Science USA, 2014. DOI:10.1073/pnas.1323111111 Send correspondence to: petersen.xander@gmail.com, santo.fortunato@aalto.fi, or hes@bu.edu

on publications in the journal *Cell*. For the selection of high-impact mathematicians comprising dataset [E] we selected the 50 authors with the most publications in the prestigious journal *Annals of Mathematics*. We choose only 50 since the variation in collaboration and productivity across mathematics is significantly smaller than in the experimental and theoretical natural sciences.

In summary, we group the 450 scientists that we analyze into four sets of 100 and one set of 50, referred to as datasets A, B, C, D, and E so that we can analyze and compare the complete publication careers of each individual, as well as across the three disciplinary groups:

[A] 100 highly-prolific physicists with average h-index $\langle h \rangle = 61 \pm 21$. These scientists were selected using the citation shares metric [3] to quantify cumulative career citation impact in the journal *Physical Review Letters* (*PRL*).

[B] 100 additional highly productive "control" physicists with average h-index $\langle h \rangle = 44 \pm 15$.

[C] 100 current physics Assistant professors with average h-index $\langle h \rangle = 14 \pm 7$. We selected two scientists from each of the top-50 US physics departments (departments ranked according to the magazine *U.S. News*).

[D] 100 highly-prolific cell biologists with average h-index $\langle h \rangle = 98 \pm 35$. These scientists were selected using the citation shares metric [3] to quantify cumulative career citation impact in the journal *Cell*.

[E] 50 highly-prolific mathematicians with average h-index $\langle h \rangle = 20 \pm 10$. These scientists were selected by choosing the authors with most papers published in the prestigious journal *Annals of Mathematics*.

Further data summaries of each scientist are provided in Tables S1-S9.

We downloaded datasets A and B in Jan. 2010, C in Oct. 2010, and D and E in Apr. 2012. We used the "Distinct Author Sets" function provided by TRWOK in order to increase the likelihood that only papers published by each given author are analyzed. On a case by case basis, we performed further author disambiguation for each author.

S2. CAREER TRAJECTORY

A. Longitudinal productivity dynamics

Scientific careers are characterized by systemic features such as collaborative productivity and reputation spillovers [5, 27, 28, 37], strategic opportunities arising from heterogenous structure in the social network [25, 26], time-dependent heterogeneities in social tie strengths [21, 38–40], and cumulative advantage and 'rich-get-richer' mechanisms [7–9, 41–43]. The scientific endeavor is also marked by many underlying uncertainties, some arising from the constraints imposed by limited resources (faculty positions, grant/research funds, ideas, facilities, data, precedence, etc.) and uncertainty stemming from unpredictability across distinct career stages [6, 16–18]. Additionally, science is also susceptible to exogenous sociopolitical shocks such as the collapse of the USSR [44]. In this data-rich age, the complex dependency structure of knowledge production is an area of extensive research.

Here we model the career trajectory as a sequence of scientific outputs which arrive at the variable rate $n_i(t)$, where the first publication occurred in year $t_{i,0}$ and the most recent publication occurred in year $t_{i,f}$, giving the period of analysis for a given career $l_i \equiv t_{i,f} - t_{i,0} + 1$. Since the reputation of a scientist is typically a cumulative representation of his/her contributions, we consider the cumulative number of papers, $N_i(t) \equiv \sum_{t'=1}^{t} n_i(t')$, as a proxy for career productivity achievement. In order to analyze the average properties of $N_i(t)$ for all the scientists in our sample, we define the normalized trajectory $\tilde{N}_i(t) \equiv N_i(t)/\langle n_i \rangle$. The quantity $\langle n_i \rangle$ is the average annual production of author i, with $\tilde{N}_i(T_i) = T_i$ by construction. For the career measures defined in this paper, unless otherwise noted, we use $T_i = Min[30, l_i]$ in order to restrict our analysis on the "growth period" of the academic career.

Fig. 1(A) shows the characteristic production trajectory obtained by averaging together the A individual trajectories $\tilde{N}_i(t)$ belonging to each dataset, $\langle \tilde{N}(t) \rangle \equiv A^{-1} \sum_{i=1}^{A} N_i(t)/\langle n_i \rangle$, We rescale the characteristic trajectory by $\langle \tilde{N}(1) \rangle$,

$$\langle N'(t) \rangle = \langle \tilde{N}(t) \rangle / \langle \tilde{N}(1) \rangle \sim t^{\overline{\alpha}} \quad \text{(S1)}$$

resulting in arbitrary ordinate units but a common starting point at $(1, 1)$, which make it easier to visually compare the scaling exponents $\overline{\alpha}$ across datasets in Fig. 1(A,B). We calculate $\overline{\alpha}$ using OLS regression of $\ln\langle N'(t) \rangle$ versus $\ln t$ over the range $t \in [1, 30]$. We perform analogous OLS regression of individual $N_i(t)$ over the range $t \in [3, T_i]$ to calculate individual α_i (see Tables S1-S9).

These empirical facts demonstrate that accelerated career growth $\alpha_i > 1$ is a characteristic property of the top cohort, consistent with increasing returns arising from knowledge and production spillovers. Hence, these life-cycle patterns characterize established careers which are robust against negative productivity shocks. This may reflect basic principles of risk management through portfolio diversification, as many top scientists become directors of large labs, and so their creative endeavors consist of parallel research efforts [45]. Nevertheless, in this diversified scenario, each research production stream requires a significant investment with uncertain "payoff " and "payout date". Because of this uncertainty over the horizon of the investment, especially in the context of finite lifetime of the scientist, theoretical models predict a decrease in research productivity with age for scientists who are more motivated by investment incentives as opposed to problem-solving incentives [46]. However, for the top scientists analyzed here, we observe many α_i values that are greater than unity for at least the first 30 years, indicating steady growth, contrary to predictions of decreased research productivity. Hence, this pattern observed for top scientists suggest that the problem-solving attribute is a key driver of extremely ambitious individuals who overcome intrinsic economically grounded incentives to divert their investments away from research with increasing career age.

B. Longitudinal citation dynamics

The scientific impact of a paper p is universally measured by the cumulative number of citations

$$c_p(\tau) = \sum_{x=t_{p,0}}^{t_{p,0}+\tau-1} \Delta c_p(x) \ , \qquad \text{(S2)}$$

where we define $\Delta c_p(t)$ as the number of citations received by the paper in career year t, with the definition for paper age $\tau = t - t_{p,0} + 1$ which defines the relation between the paper age τ, the career age t, and the first year the paper was cited, $t_{p,0}$. Without loss of generality, the paper index p can be replaced by a rank-ordered index r. Hence, the total number of citations to the papers coauthored by individual i is calculated by integrating the rank-ordered citation distribution $c_i(r,t)$,

$$C_i(t) = \sum_{r=1}^{N_i(t)} c_i(r,t) \ . \qquad \text{(S3)}$$

Figures 2 and S1–S3 illustrate longitudinal citation profiles for 33 scientists, showing the citation trajectories for their top papers as well as $C_i(t)$.

In order to extract the characteristic $C_i(t)$ trajectory, we factor out the average citation rate $\langle c_i \rangle = C_i(t)/T_i(t)$ over the first $T_i = Min[50, l_i]$ years, which can vary considerably across scientists. The aggregate trajectory $\tilde{C}_i(t) \equiv C_i(t)/\langle c_i \rangle$ for the A scientists comprising each dataset is $\langle \tilde{C}(t) \rangle \equiv A^{-1} \sum_{i=1}^{A} C_i(t)/\langle c_i \rangle$. Fig. 1(B) shows growth characterized by super-linear scaling,

$$\langle C'(t) \rangle = \langle \tilde{C}(t) \rangle / \langle \tilde{C}(1) \rangle \sim t^{\overline{\zeta}} \qquad \text{(S4)}$$

with $\overline{\zeta} \approx 2.5$ for top scientists in physics and biology, and $\overline{\zeta} \approx 1.5$ for mathematicians. We calculate the scaling exponents using OLS regression of $\ln \langle C'(t) \rangle$ versus $\ln t$ over the range $t \in [1, 20]$.

C. Citation trajectory of individual papers

Despite the laborious data collection efforts required in obtaining high-resolution citation data, a question that has been on the minds of bibliometric scientists for 30 years is [47]: What is the impact life cycle of publications and how does it depend on the eventual impact magnitude? In order to compare the citation trajectory of individual papers we rescale the citation trajectory of each paper by its maximum value over the period of analysis,

$$\Delta c'_p(\tau) \equiv \Delta c_p(\tau)/Max[\Delta c_p(\tau)] \ . \qquad \text{(S5)}$$

For each author, we sort the papers by their total number of citations in 2010 resulting in a ranked set of trajectories. We then compute a normalized citation trajectory by averaging together sets of individual trajectories for different rank groups,

$$\langle \Delta c'_i(\tau | r_0, R) \rangle \equiv R^{-1} \sum_{r=r_0}^{r_0+R-1} \Delta c'_i(r, \tau) \qquad \text{(S6)}$$

where a rank group is defined by the sequence of ranks $r = r_0 \ldots r_0 + R - 1$. We perform an analogous procedure for each discipline by dividing all paper trajectories into 10 sets, each comprising a decile of the citation distribution. Hence, the top decile corresponds to the top 10% of cited papers from a particular dataset. We then compute the average rescaled citation trajectory $\langle \Delta c'(\tau) \rangle$ for the R papers in each decile.

Disciplinary factors are shown to have a strong affect on the discovery life cycle. Fig. 3 shows $\langle \Delta c'(\tau) \rangle$ for the 3 disciplines and for 3 individual careers. The variation in the trajectories for different paper trajectory groups illustrates how the net impact of the paper derives from the life cycle: highly cited papers have a slower decay pattern than less-cited papers meaning that the overall citation difference is not due solely to an overall amplitude. Consider the characteristic decay time to 1/2 the maximum citation rate, $\tau_{1/2}$, corresponding to $\Delta c'(\tau_{1/2}) = 1/2$ during the citation decay phase. In physics and biology, the extremely highly-cited papers have $\tau_{1/2} \gtrsim 10$ years, whereas the less-cited papers have $\tau_{1/2} \lesssim 5$ years. Moreover, in mathematics $\tau_{1/2}$ can be extremely large extending for approximately a century, since seminal mathematics papers establish axiomatic proofs which if sufficiently foundational, have approximately zero obsolescence. This is corroborated by the top-cited theoretical physics which have a relatively long $\tau_{1/2}$, possibly due to the natural laws discovered in theoretical physics which carry the potential for subsequent experimental validation and inclusion in foundational "standard models".

Name recognition, both "who you are" and "who you work with", is the basis for the prestige signaling mechanism embedded in scientific social networks [5, 21]. We analyze late-career versus early career sample variations in the the citation trajectory $\langle \Delta c'(\tau) \rangle$ to provide further evidence for the strong role of author reputation in science. Figure S4 shows the ratio of the characteristic citation trajectory calculated using papers published in the first 10 years of a scientist's career, $t_{p,0} \in [1, 10]$, and the characteristic citation trajectory calculated using papers published in years $t_{p,0} \in [20, 30]$. We further disaggregate the data for the physics and biology datasets by separating the individual paper trajectories into total citation groups $[40 \times 2^n, 40 \times 2^{n+1} - 1]$ for $n = 0 \ldots 5$. We then compute the trajectories for papers that fall into a given citation group to account for the considerable variations in paper impact. The difference between the left and right panels is the normalization of the trajectories used: the left panels aggregates citation trajectories that are normalized by their max citation value as defined by Eq. (S5), and the right panels aggregate citation trajectories that are not normalized. A comparison of these two methods shows that there is no qualitative difference in the trajectories, indicating that the citation groups used are appropriate subsets which do not carry significant statistical biases.

For the highly-cited citation group $n = 4, 5$, the ratio between the two trajectories is consistently larger than unity suggesting that the top papers published after a scientist has established a significant reputation receive a "citation boost" [23]. This citation boost is less strong for the papers that are less-cited, especially in the biology dataset. However, the physics data shows for all citation groups that the boost is sustained for longer than 10 years. This result shows further evidence that there are significant longitudinal variations in reputation consistent with the "righ-get-richer" ("Matthew") effect in science [7–9]. Ref. [3] offers confirming evidence by analyzing the time period between successive publications in high-impact journals, showing significant decrease in the waiting time with each successive publication. In other words, although it may be difficult to publish in $Nature$ or $Science$ for the first time, the time between the 10th and 11th time is significantly less than the time lag between the 1st and 2nd time.

S3. COLLABORATION MEASURES

As collaboration in science becomes more prevalent [31, 48, 49], exemplified by the extremely large team projects and initiatives centered around massive laboratories (e.g. CERN [50]) and/or data (e.g. the ENCODE consortium [51]), developing measures for collaboration ties, measures for the strengths of these ties, and understanding the dynamics of these ties, will become increasingly important. In particular, the organizational dynamics of team assembly [28, 29, 52], the collaboration spillovers [5, 6, 22, 53], the overarching multiplex network of scientists and knowledge [27, 54, 55] will likely be areas of significant growth in the data-driven interdisciplinary sciences.

Here we use coauthor metadata in each paper within a scientists's publication portfolio to measure the number of coauthors each year, using 3 definitions:

1) the total coauthor count $k_i^{all}(t)$ is the total number of names on the $n_i(t)$ papers in year t.

2) the distinct coauthor count $k_i(t)$ is the number of distinct names in the set of $k_i^{all}(t)$.

3) the new coauthor count $k_i^{new}(t)$ is the number of coauthors that the central author i has never published with before year t.

By construction $k_i^{all}(t) \geq k_i(t)$ and $k_i(t) > k_i^{new}(t)$ for $t > 1$, since the central author i is counted as a distinct coauthor in the first year $t = 1$. Tables S1-S9 list 3 collaboration metrics based on these definitions,

- the author's characteristic number of new collaborators per paper, $\Xi_i \equiv T_i^{-1} \sum_{t=1}^{t=T_i} \frac{k_i^{new}(t)}{n_i(t)}$,
- the author's total number of unique collaborators, $K_{i,T}^u = \sum_{t=1}^{t=T_i} k^{new}(t)$,
- the author's collaboration radius, $S_i = Median[k_i(t)]$

Fig. S5 shows the evolution of these three collaboration measures, along with the cumulative publication and citation trajectories, $N_i(t)$ and $C_i(t)$, for the careers shown in Fig. 2. Notably, the logarithmic slopes $N_i(t)$ and the cumulative collaboration measures appear to be stable over the career, demonstrated by the approximately constant offset between theses curves over the career. This suggests that there is a fundamental scaling relation between the career production $N(t) \sim t^{\alpha_i}$ and the team size $K_{i,t}^u = \sum_{t'=1}^{t} k_i^{new}(t') \sim t^{\kappa_i}$. Fig. S6 is a scatter plot of productivity measures $N_i(T_i)$ and $K_{i,T}^u$ for all 450 careers at age $T_i = Min[30, l_i]$, which restricts the analysis to the growth period of the career. We test the model

$$N_i(T_i) \sim (K_{i,T}^u)^{\epsilon} \tag{S7}$$

and calculate $\epsilon \approx 0.5$ using OLS regression. The value $\epsilon < 1$ suggests that team management inefficiencies are significant in science, a feature that must be addressed and tempered in extremely large group projects. Furthermore, this finding suggests a simple relation for the generalized labor input efficiency of a given author,

$$\epsilon_i \equiv \kappa_i / \alpha_i \ , \tag{S8}$$

which we leave as an open avenue for investigation. Scaling relations of this sort serve to establish quantitative links between the various aspects of academic careers so that the unlimited number of career measures can be distilled into a small but representative set.

S4. RANK-CITATION DISTRIBUTION MODEL

Measures for productivity and impact (the latter we proxy by citations) are readily available, and thus the publication portfolio of a scientist is typically a key component of his/her scientific evaluation. The rank-citation profile, $c_i(r)$, represents the number of citations of individual i to his/her paper r, ranked in decreasing order $c_i(1) \geq c_i(2) \geq \ldots c_i(N)$, and provides a quantitative synopsis of a scientist's portfolio of $N(t)$ papers at any time t. In fact, the h-index h_i, introduced by J. E. Hirsch in 2005 [57], is a widely-used but highly-debated [58, 59] measure to quantify a scientist's productivity and impact simultaneously with a single-number. Much of the debate stems over the dependence of the h-index on discipline-specific factors [60, 61], the ability of the h-index to predict future impact [62], and the information encoded by the h-index, which appears to have a robust scaling relation with the total number of citations, $C_i(t) \sim h_i(t)^{1+\beta_i}$ [4, 63], making it no more informative than the total citations.

This index has a simple graphical definition, corresponding to the single point on the rank-citation profile $c_i(r)$ satisfying the fixed-point condition

$$c_i(h_i) = h_i \ . \tag{S9}$$

Fig. 2 shows the evolution of both $c_i(r,t)$ and the h-index $h_i(t)$, which corresponds graphically to the intersection of $c_i(r,t)$ with the line $y = x$ (dashed black line), at 5-year intervals for 3 real careers. However, the single intersection point $c_i(h_i)$ is to a large extent an arbitrary point along the $c_i(r)$ curve consisting of N ranked papers. In fact, there are approximately N related definitions according to the intersection with the set of lines $H_b(r) \equiv b\, r$ each parameterized by a different slope b. The value $b \equiv 1$ corresponds to the traditional h-index $h_1 = h$ proposed by Hirsch. Hence, the intersection of any given line $H_b(r)$ with $c_i(r)$ corresponds to the "generalized h-index" h_b,

$$c(h_b) = b h_b \;, \tag{S10}$$

with the relation $h_b \leq h_q$ for $b > q$.

Instead of measuring productivity and impact of a given career with a single number, we take an alternative approach which is to quantify the entire $c_i(r)$ profile at once (which is also equivalent to knowing the entire h_b spectrum). Surprisingly, because we find regularity in the functional form $c_i(r)$ for all scientists analyzed, we can relate the relative impact of a scientist's publication career using the small set of parameters that specify the $c_i(r)$ profile for the entire set of papers ranging from rank $r = 1...N_i$. Using a much smaller parameter space than the h_b spectrum, we can begin to analyze the statistical regularities in the career accomplishments of scientists.

For each scientist i, we find that $c_i(r)$ can be approximated by a scaling regime for small r values, followed by a truncated scaling regime for large r values. Recently the discrete generalized beta distribution (DGBD) was introduced as a novel rank-order distribution [64, 65], defined as

$$c_i(r) \equiv A_i r^{-\beta_i} (N_i + 1 - r)^{\gamma_i} \;. \tag{S11}$$

This rank-order distribution was recently tested and validated as a benchmark distribution model for all careers in datasets [A], [B], and [C] in [4], where a quantitative scaling relation between the total citations C_i and h_i was shown to be

$$C_i \sim h_i^{1+\beta_i} \;. \tag{S12}$$

The DGBD is an improvement over the Zipf law (also called the generalized power-law or Lotka-law) model and the stretched exponential model since it reproduces the varying curvature in $c_i(r)$ for both small and large r. Instead of discarding the curvature in the large r regime as finite-size effects, the DGBD accounts for the curvature using a second scaling exponent γ_i. The parameters A_i, β_i, γ_i and N_i are each defined for a given $c_i(r)$ corresponding to an individual scientists i.

We estimate the two scaling parameters β_i and γ_i using *Mathematica* software to perform a multivariate regression of $\ln c_i(r) = \ln A_i - \beta_i \ln r + \gamma_i \ln(N_i + 1 - r)$ in the base functions $\ln r$ and $\ln(N_i + 1 - r)$. In our fitting procedure we replace N with r_1, the largest value of r for which $c(r) \geq 1$ (for example, we find that $r_1/N_i \approx 0.84 \pm 0.01$ for careers in datasets [A] and [B] for which the regression correlation coefficient $R_i > 0.97$ in all cases). To properly weight the data points for better regression fit over the entire range, we use only 20 values of $c_i(r)$ data points that are equally spaced on the logarithmic scale in the range $r \in [1, r_1]$.

The β_i value determines the relative change in the $c_i(r)$ values for the high-rank papers, and thus it can be used to further distinguish the careers of two scientists with the same h-index. In particular, smaller β_i values characterize flat profiles with relatively low contrast between the high and low-rank regions of any given profile, while larger β_i values indicate a sharper separation between the two regions.

In order to demonstrate the common functional form of the DGBD model, we collapse all 200 $c_i(r)$ in datasets [C] and [D] along a universal scaling function $c(r') = 1/r'$ by using the rescaled rank values $r' \equiv r^{\beta_i}$ defined for each curve. In Fig. S7 we plot the quantity $c_i(r') \equiv c_i(r)/A(r_1 + 1 - r)^{\gamma}$, using the best-fit γ_i and A_i parameter values for each individual $c_i(r)$ profile. While the $c_i(r)$ curves in the left panels are jumbled and distributed over a large range of $c(r)$ values, the rescaled $c_i(r)$ all lie approximately along the master curve $c(r') = 1/r'$.

A. Statistical significance tests for the $c(r)$ DGBD model

We test the statistical significance of the DGBD model fit using the χ^2 test between the 3-parameter best-fit DGBD $c_m(r)$ and the empirical $c_i(r)$. We calculate the p-value for the χ^2 distribution with $r_1 - 3$ degrees of freedom and find, for each data set, the number $N_{>p_c}$ of $c_i(r)$ with p-value $> p_c$: $N_{>p_c}$ = 4 [A], 19 [B], 22 [C], 4 [D], and 8 [E] for $p_c = 0.05$, and 8 [A], 22 [B], 37 [C], 9 [D], and 15 [E] for $p_c = 0.01$.

The significant number of $c_i(r)$ which do not pass the χ^2 test for $p_c = 0.05$, results from the fact that the DGBD is a scaling function over several orders of magnitude in both r and $c_i(r)$ values, and so the residual differences $[c_i(r) - c_m(r)]$ are not expected to be normally distributed since there is no characteristic scale for scaling functions such as the DGBD. Nevertheless, the fact that so many $c_i(r)$ do pass the χ^2 test at such a high significance level, provides evidence for the quality-of-fit of the DGBD model. For comparison, none of the $c_i(r)$ pass the χ^2 test using the power-law model at the $p_c = 0.05$ significance level. In the next section, we will also compare the macroscopic agreement in the total number of citations for each scientist and the total number of citations predicted by the DGBD model for each scientist, and find excellent agreement.

B. Characterizing the rank-citation $c_i(r)$ profile

As many previous studies have shown, and further demonstrated here, there are many conceivable ways to quantify $c_i(r)$. In Tables S1-S9 we list 16 quantitative indicators for a scientific career:

[1] the author's total number of papers N_i,

[2] the author's total number of citations $C_i \equiv \sum_{r=1}^{N} c_i(r)$,

[3] the author's most-cited paper $c_i(1)$,

[4] the author's traditional h-index $h_i \equiv h_{1,i}$ (see [4] for the definition of the generalized h-index $h_{b,i}$),

[5] the author's scaling exponents β_i and γ_i calculated using multilmultivariate least-squares regression fit to the DGBD model $c_i(r)$ in Eq. (S11),

[6] the author's number of papers in units of the h-index $N'_i \equiv N_i/h_i$,

[7] the author's average number of citations per paper in units of the h-index, $\langle c_i \rangle' \equiv \langle c_i \rangle / h_i$,

[8] the author's "productivity" value proposed by Hirsch, $a_i \equiv C_i/h_i^2 = N'_i \times \langle c_i \rangle'$,

[9] the author's production acceleration exponent α_i calculated using only up to the first 30 years of the career,

[10] the author's reputation acceleration exponent ζ_i calculated using only up to the first 30 years of the career,

[11] the author's "impact factor", $\lambda(\tau)$, measuring the average number of citations to his/her papers after $\tau = 2$ and $\tau = 5$ years,

[12] the author's characteristic number of new collaborators per paper, $\Xi \equiv T_i^{-1} \sum_{t=1}^{t=T_i} \frac{k^{new}(t)}{n(t)}$, where $k^{new}(t)$ is the number of new collaborators in year t of his/her career,

[13] the author's total number of unique collaborators, $K_T^u = \sum_{t=1}^{t=T_i} k^{new}(t)$,

[14] the author's collaboration radius, $S_i = Median[k_i(t)]$, where $k_i(t)$ is the number of unique coauthors from all papers coauthored in that year,

[15] the author's average collaboration duration, $\langle L_i \rangle$,

[16] the duration of the author's career, l_i, measuring the time span between his/her first and last publication *within the given database*.

S5. QUANTITATIVE MODEL FOR CAREER GROWTH

A. Reputation model

Preferential attachment has been a candidate model proposed for citation dynamics, and has been modified recently to account for the time-dependence of the citation rate [11–13, 66–68] along with other recent variations [69]. Here we develop a citation model which incorporates the cumulative reputation of the researcher which can significantly affect his/her visibility in the scientific community, and hence, the likelihood of being cited. We use the convention that t is the career age of the scientist and τ_p is the paper age of paper p which was first cited in year $t_{p,0}$.

We use the convention that new papers are effectively "born" in the year that they are first cited so that $c_p(\tau = 1) \equiv c_0$ citations. The year after this initial seed year is when the stochastic aspect of the citation growth begins. We model the career as a sequence of periods $t = 1...T$ (e.g. years).

Each period, each paper independently gains a random number Δc of citations according to the model

$$\Delta c_{i,p}(t+1) \equiv \eta \times \Pi_p(t) \times A_p(\tau) \times R_i(t) \, , \qquad \text{(S13)}$$

which is a combination of a multiplicative noise term, two paper-specific factors, and one author specific factor. We use multivariate regression of empirical citation trajectories using the model

$$\ln \Delta c_p(t+1) = \ln \eta + b_1 \ln c_p(t) + b_2(t - t_{p,0} + 1) + b_3 \ln R_i(t) \qquad \text{(S14)}$$

where $b_1 = \pi_i$, $b_2 = -1/\overline{\tau_i}$, and $b_3 = \rho_i$, using papers with $\tau > 1$ and for years with $\Delta c_p(t+1) > 0$. We denote the regression parameters with an index i to account for the possibility that they are author dependent.

B. Regression analysis

We first perform a simple estimation of the basic preferential attachment model, with no aging or reputation effects, to get a sense of how the citation dynamics corresponding to these top careers compares to the results of preferential attachment analyses performed previously [11–13, 66–68]. For our large longitudinal career dataset covering 450 leading scientists comprising 83,693 papers and 7,577,084 citations tracked over 387,103 paper years, we show in Fig. S8 the statistical relation between the number of new citations $\Delta c(t)$ and the cumulative number of citations $c_i(t-1)$. Each datapoint corresponds to a subset of papers with $c_i(t-1) \in [c \pm \Delta c]$ using logarithmically spaced bins. For each bin we compute the average number of new citations in the following year, $\langle \Delta c(t) \rangle$ and the standard deviation $\sigma[\Delta c(t)]$. For this dataset we find that the scaling regime only appears above a crossover citation value denoted as $c_\times$ which varies by discipline. Above this value, the "attachment rate" $\Delta c_i(t) \sim c_i(t-1)^{\Pi}$ of new citations is non-linear with scaling exponent $\Pi \approx 0.8 - 1.0$. Below $c_\times$ the attachment rate does not decay as quickly, likely a feature of the dataset we use which is biased toward high-impact papers since all the authors analyzed in datasets [A]-[E] are prominent.

We next perform a 3-factor analysis of the citation dynamics using the regression model in Eq. (S13) to analyze the dependence of π, τ, and ρ on $c_i(t-1)$. For each value of c, we collect all paper years with $c(t-1) \in [c \pm 5]$. We then run the regression model on each subset which yields $\pi(c)$, $\tau(c)$, $\rho(c)$ and adjusted $R^2(c)$ values for each c. Figure S9 shows the c-dependence of the model parameters, which indicates that the author reputation parameter $\rho(c) \approx 0.15$ is initially significantly positive for infant papers with $c < c_\times$ and becomes insignificant, $\rho(c) \approx 0$ around $c \approx c_\times$. Conversely, the paper impact parameter $\pi(c)$ is initially relatively small for $c < c_\times$ and becomes significantly larger with $\rho(c) \approx 0.6-0.7$ around $c \approx c_\times$. Hence, this switching suggest that papers are initially boosted by author reputation towards a citation tipping point $\approx c_\times$, in effect an "exit velocity", which on reaching, the paper "takes off" and is reinforced by the paper impact mechanism which is traditionally attributed as the key component behind the preferential citation attachment rate. Further evidence of a tipping point is demonstrated in [13], where it is shown that the autocorrelations in $c(t)$ for physics papers are strong for $c(t) \gg 60$ citations.

We apply this refinement technique to also analyze the dependence of π, τ, and ρ on the career age t. For each value of t, we collect all papers that exist in the period $[t \pm 2]$. We then run the regression model on each subset which yields the estimates $\pi(t)$, $\tau(t)$, $\rho(t)$ and adjusted $R^2(t)$ values for subset centered around year t. Figure S10 shows the t-dependence of the model parameters for each dataset. We confirm, especially for datasets [C,D], that $\rho(t)$ increases significantly in the first years of the career, providing further evidence for a cumulative reputation effect.

In order to better understand the relative roles of author reputation vis-á-vis paper impact we separate the citation trajectories into two subsets: one dataset satisfying $c(t-1) \geq c_\times$ and another non-overlapping dataset satisfying $c(t-1) < c_\times$. We perform a statistical regression of the citation trajectories above and below $c_\times$ = 40 [A/B], 10 [C], 100 [D], and 20 [E] for each dataset for both the set of aggregated careers (shown in Tables S10–S13) and for individual careers (shown in Tables S14 – S22). At the aggregate level, Table S10 shows the results for less cited papers $c(t-1) < c_\times$ while Table S11 shows the results for highly cited papers $c(t-1) \geq c_\times$. For each dataset, the robust trend is that $\rho(c < c_\times) > \rho(c > c_\times)$ and $\pi(c < c_\times) < \pi(c > c_\times)$.

Comparing the standardized regression coefficients (listed on the third line of the regression parameter table for each dataset), the reputation parameter ρ dominates for less-cited papers, and is overcome by the paper impact parameter π once the paper has reached the tipping point $c_\times$. Tables S14 – S22 show the results for the regression model applied to individual careers (the asterisks denote statistical significance: * indicates $p < 0.05$, ** indicates $p < 0.01$, *** indicates $p < 0.001$. For each regression parameter b_k we calculated the average $\langle b_{k,i} \rangle$ across all authors in each dataset and confirm that the macroscopic patterns hold at the microscopic scale of individual careers, $\langle b_{k,i} \rangle \approx b_k$, where b_k is calculated by aggregating all scientists into a single dataset. As an additional test for selection bias, we performed the same regression on papers that were eventually highly cited ($c(T) \geq$100 for [A,B,D] and $c(T) \geq$50 for [C,E]) and confirm the same pattern for the highly cited papers which account for roughly 50% of the data analyzed.

C. Model ingredients

Here we demonstrate that Monte Carlo (MC) simulation of the publication-citation portfolio using the 3-factor career model can be used to create synthetic careers that can be compared to empirical benchmarks. Two general ingredients for the MC simulation of synthetic career i are:

(A) Authors publish according to the cumulative publication trajectory $N_i(t) \approx n_0 \times t^{\alpha_i}$, an empirical regularity first observed in [6] and verified on average for all scientists analyzed in Fig. 1. We take this pattern to be an intrinsic feature of scientific leadership (with variation mainly depending on the discipline). For $\alpha_i = 1$, this model predicts a constant rate n_0 publications per year. Alternatively, there may be acceleration ($\alpha_i > 1$) in output (likely collaboration growth) or deceleration ($\alpha_i < 1$) over the career.

(B) There is a stochastic component underlying the arrival rate of citations in a given year. For the 3-factor simulation we model the stochasticity as a log-normally distributed random variable, $LogNormal[\mu_{LN}, \sigma_{LN}]$. We choose the Log-Normal distribution based on analysis of the distribution of residuals based on the multivariate regression model of the empirical data. For the 2-factor and 1-factor simulation we model the stochasticity as an exponentially distributed variable, $Exp[\lambda]$ based on analysis in Fig. S8.

Three specific factors which are the focus of our regression analysis are:

(1) *The paper reputation (PA) effect.* The linear preferential attachment model has been proposed as a candidate model that explains the citation distribution [11]. We define the paper effect as a quantity that is proportional to a non-linear measure of its impact, $\Pi_p(t) \equiv [c_{i,p}(t)]^\pi$.

(2) *The paper life cycle (LC) effect.* The potential "attractiveness" $A_{i,p}(\tau) \equiv \exp[-\tau_p/\overline{\tau_i}]$ of a paper decays exponentially over its lifetime [11]. This component captures the half-life timescale $\overline{\tau_i}$ of author i, incorporating discipline and author dependent factors.

(3) *The author reputation (R) effect.* We capture author-specific factors underlying the scientific prestige system which leads manifestly to cumulative advantage. One candidate to proxy for the reputation is the h-index, a cumulative single-number representation of the career that has become a popular but controversial measure [57–59]. Recently it has been shown that the h-index does not provide extra information beyond the total number of citations, $C_i(t)$, which has shown to be related to the h-index via the simple scaling relation $C_i \sim h_i^{1+\beta_i}$ [4]. Hence, we quantify the cumulative author reputation $R_i(t)$ as a slow scaling function of the total number of citations, $R_i(t) \equiv [C_i(t)]^{\rho_i}$.

We use MC simulation to simultaneously test 3 models which progressively add these three features in a way that is consistent with our empirical analysis. The three models are:

[1] PA Model: the citation dynamics are modeled by a preferential attachment process with nonlinear scaling exponent π, $\Delta c_{i,p}(t+1) \sim [c_{i,p}(t)]^{\pi}$.

[2] PA-LC Model: the citation dynamics are modeled as a preferential attachment process with nonlinear scaling exponent π along with a multiplicative exponentially-decaying life cycle factor, $\Delta c_{i,p}(t+1) \sim [c_{i,p}(t)]^{\pi} \times \exp[-\tau/\overline{\tau_i}]$.

[3] PA-LC-Reputation Model: the citation dynamics are modeled as a preferential attachment process with nonlinear scaling exponent π along with a multiplicative exponentially-decaying life cycle factor, $\Delta c_{i,p}(t+1) \sim [c_{i,p}(t)]^{\pi} \times \exp[-\tau_p/\overline{\tau_i}] \times [C_i(t)]^{\rho}$

D. MC simulation

The MC simulation evolves according to the following three steps which are applied to the publication portfolio in a series of periods representing career years, $t \in [1, T]$:

i) New papers, pre-determined by the choice of n_0 and α, are published each year and are initially seeded with citations according to a Poisson random variable, $c_{i,p}(\tau_p = 1) \equiv Poisson[\lambda(2)/2]$, where $\lambda(2) \approx 10$ is a typical 2-year impact factor observed for top scientists. Furthermore, we endow each paper with a stochastic discovery half-life $\overline{\tau_i} = t_{1/2} + \eta$ where η is Normally distributed with mean 1 and standard deviation 0, and tested for values in the range $t_{1/2} = 3 - 5$.

ii) Old papers gain new citations each year according one of the four citation dynamics models. In model [1] the number of new citations for each paper p is given by $\Delta c_{i,p}(t+1) \equiv Poisson[\lambda]$, where λ is the mean citation rate, independent of t. In models [2] and [3] the number of new citations for each paper p is given by $\Delta c_{i,p}(t+1) \equiv Exp[\lambda]/\Delta t$, where $\lambda = [c_{i,p}(t)]^{\pi}$ and $\lambda = [c_{i,p}(t)]^{\pi} \times \exp[-\tau_p/\overline{\tau_i}]$, respectively, are the expected value of the exponentially distributed variable. The coefficient $1/\Delta t \sim 0.1$ is a normalizing factor that keeps the citation rate bounded. In model [4] the number of new citations for each paper p is given by $\Delta c_{i,p}(t+1) \equiv LogNormal[\mu_{LN}, \sigma_{LN}]/\Delta t$, where $\sigma_{LN} \equiv 0.8$ according to empirical analysis of the data, and and $\mu_{LN} = \ln([c_{i,p}(t)]^{\pi} \times \exp[-\tau_p/\overline{\tau_i}] \times [C_i(t)]^{\rho}) - \sigma^2_{LN}/2$. Again, $1/\Delta t \sim 0.1$ represents a normalizing factor that keeps the citation rate bounded.

iii) The author reputation $C_i(t)$ increases each year as a biproduct of citations arriving to (i) new papers and (ii) old papers.

In Fig. 4 we compare MC careers characteristic of each model. Moreover, we use the statistical regularities observed for real careers, demonstrated in Figs. 1–3, and Figs. S1–S3, as empirical benchmarks for each MC model. The left column shows the the normalized citation trajectory $\langle \Delta c'(\tau) \rangle$ for the top 4 groups of ranked papers. The center column shows the evolution of $c_{i,p}(\tau)$ for the top R papers in each synthetic career along with the total number of citations $C_i(t)$ (dashed black curve). The right column shows the evolution of the rank-citation profile $c_i(r)$ at 5-period intervals, and lists the best-fit DGBD β and γ parameters, useful as quantitative benchmarks, calculated at $t = 40$. The important input parameters for Fig. 4 are: For the PA model (i) we use $\alpha = 1$, $n_0 = 10$, and $\lambda(2)/2 = 5$ to seed new papers. For the PA-LC model (ii) we use $\alpha = 1$, $n_0 = 10$, $\lambda(2)/2 = 5$ to seed new papers, and $t_{1/2} = 5$. For the PA-LC-Reputation model (iii) we use $\alpha = 1.2$, $n_0 = 5$, $\lambda(2)/2 = 2$ to seed new papers, and $\langle \overline{\tau} \rangle = 3$ and $\rho = 0.15$.

The PA model fails to reproduce the characteristic trajectories of real papers, since there is a clear first-mover advantage [24] for the first papers published in the career, which is also evident in the extreme acceleration of $C_i(t)$, which does not appear to obey a power-law scaling. The PA-LC model reproduces the characteristics of the DGBD $c_i(r)$ profile and the top papers (brightest red curves) appear to be evenly distributed throughout the career, however the β value is relatively small, and the $\langle \Delta c'(\tau) \rangle$ do not vary between citation rank groups. The PA-LC-Reputation model, however, satisfies the characteristics of the empirical benchmark in all 3 graphical categories, and further demonstrates $\zeta > 2$ and clear distinction in the life cycle trajectories $\langle \Delta c'(\tau) \rangle$ calculated for the top sets of ranked papers.

The model also provides the opportunity to investigate properties of "average" careers for a given parameter set. While an in-depth analysis of the parameter space for this MC career model remains an open avenue for future research, we initiate with a basic investigation: what is the likelihood of having a paper exceed $c_{\times}$?

Fig. S11 shows the fraction $f_{\geq c_x}$ of papers in career year t, for a hypothetically "typical" career, which have $c_p \geq c_{\times}$. In panel (A) we count the total number of papers that are above the discipline dependent threshold $c_{\times}$ and normalize this quantity appropriately by the total number of papers published up to that point across all careers for a given dataset. For example, in year $t = 10$ we calculate $f_{\geq c_x} = 0.13$ [A], 0.07 [B], 0.12 [D], and 0.04 [E]. By year $t = 20$ these values roughly double to $f_{\geq c_x} = 0.24$ [A], 0.15 [B], 0.26 [D], and 0.11 [E], and towards the end of the career for $t = 40$ they saturate around $f_{\geq c_x} = 0.31$ [A], 0.24 [B], 0.32 [D], and 0.20 [E]. It is worth noting how the curves for the top career datasets [A] and [D] are remarkably similar, as well how $f_{\geq c_x}$ for dataset [A] is consistently larger than dataset [B], consistent with the definition of the datasets.

Fig. S11(B) shows the results of simulating 1000 careers for each of four combinations of publication growth α and reputation effect ρ parameters. The value $\alpha = 1$ corresponds to a career with a constant number of publications per year, whereas the career with $\alpha = 1.2$ exhibits productivity growth across the career. As such, the simulation starts with $N(1) \equiv 5$ and ends with $N(40) = 40 \times 5 = 200$ in the former case and

$N(40) \equiv 418$ in the latter case. We also vary the reputation effect from $\rho = 0$ to $\rho = 0.15$ to demonstrate the significant impact of reputation on the growth of c_p, and thus the entire profile $c_i(r)$. We calculate $f_{\geq c_x}$ using $c_\times \equiv 40$ and the same set of parameters as described previously in the section for the synthetic careers shown in in Fig. 4. Comparing the 4 scenarios, it is quite evident that reputation plays a strong role in the likelihood of having a paper exceed $c_\times$. By simulation period $t = 5$ there is already a significant difference, with $f_{\geq c_x} = 0.003$ for $\alpha = 1.0$ and $f_{\geq c_x} = 0.001$ for $\alpha = 1.2$ for $\rho = 0.15$ compared to $f_{\geq c_x} \approx 0.0004$ for $\alpha = 1.0$ and $\alpha = 1.2$ for $\rho = 0.0$. By the end of the simulation ($t = 40$) there is more than a 100-fold increase in the likelihood of $c_p \geq c_\times$ in the presence of the reputation effect, with $f_{\geq c_x} = 0.24$ for $\alpha = 1.0$ and $f_{\geq c_x} = 0.32$ for $\alpha = 1.2$ and $\rho = 0.15$, as compared to $f_{\geq c_x} = 0.001$ for $\alpha = 1.0$ and $\alpha = 1.2$ with $\rho = 0.0$.

S6. ACCOUNTING FOR GROWTH TRENDS IN SCIENCE

The growth of the scientific endeavor during the 20th century has occurred at a steady pace, reflecting the feedback of new technology on R&D growth, the increasing size of the scientific labor force, the increasing productivity of scientists, and innovations in the publication and dissemination process. As a result, the total numbers of publications has increased remarkably over the last century, and continues to grow in part due to innovations in online-only journals which have further reduced the submission-to-publication time. In addition, these growth trends also impact the way scientists search and retrieve information in journals [70], and also impacts the quality assessment of journals which are typically based on citation measures, e.g. the Impact Factor [71, 72].

In this section we analyze the role of intrinsic growth trends on our quantitative measures of growth and reputation within careers. Specifically, we (i) determine how much of the growth in $C_i(t)$ reflects the increased supply of citations due to exponential growth in total publication output, and (ii) estimate the reputation, life-cycle, and preferential attachment effects using a fixed-effect regression model that better controls for secular variation across time.

A. Deflating citation counts using a scientific output index

Accounting for underlying growth trends using an appropriate deflator index (detrending) is important for comparing nominal prices in economics, but is a general feature of comparing success measures derived in other social systems across time, such as n sports [73] as well as science [1, 3].

In the context of our analysis, a citation count can be interpreted as being relative to the total possible number of citations achievable. Since a new paper in year t can cite previously published papers only once, the basic index for the "relative" value of citations is the publication rate. Hence, in order to estimate the effect of growth on longitudinal citation counts, we calculated for each discipline (cell biology, physics, and mathematics) the total number of publications per year, $D(t)$ using the complete Thomson Reuters Web of Science dataset. Fig. S12(A) shows the growth of $D(t)$ for each discipline over the time period 1965-2010. The growth is approximately exponential with growth rate g_p corresponding to an approximately 5% growth rate in papers per year for each discipline analyzed.

So how much could this underlying inflation sustain the growth we observed in total citations $C_i(t)$ of individual researchers? Since a new paper can cite an old paper only once, we used $D(t)$ as a "citation deflator" to normalize the value of the citation counts within a particular discipline, normalizing the citations arriving in year t by $D(t)$,

$$\Delta c^D_{i,p}(t) \equiv \Delta c_{i,p}(t)/D(t) \text{ and } \Delta C^D_i(t) \equiv \Delta C_i(t)/D(t)\ . \quad \text{(S15)}$$

Hence, we applied this deflator to the citation growth trajectories $C_i(t)$ obtaining the deflated growth trajectory $C^D_i(t)$. We then recalculated a growth exponent ζ_i corresponding to the model form $C^D_i(t) \sim t^{\zeta_i}$ for each scientist i. Fig. S12(B) shows the probability distribution $P(\zeta)$ of individual ζ_i values before and after we deflated the citation trajectories. The overall effect of deflating citations in this way was to reduce the ζ_i values by only roughly 15%, meaning that the intrinsic reputation growth of stellar careers still follows algebraic growth with $\zeta_i \gtrsim 2$.

B. Controlling for growth trends in science using a fixed effects citation model

Here we aim to determine the impact of growth trends on the estimates of the life-cycle effect ($\overline{\tau}$), the paper (preferential attachment) effect (π), and the author-specific reputation effect (ρ). We used multivariate regression to estimate the parameters of the model

$$\begin{aligned} \ln \Delta c_{i,p}(t+1) &= b_0 + b_1 \ln c_{i,p}(t) + b_2(t - t_{p,0} + 1) \\ &+ b_3 \ln \Delta C_i(t) + year_t + author_i + \epsilon_{i,t}\ , \end{aligned} \quad \text{(S16)}$$

which controls for both time (via a fixed-effect variable $year_t$ controlling for idiosyncratic shocks) and author-specific time-invariant features (via a fixed-effect variable $author_i$). Furthermore, in the regression we also clustered standard errors by year to account for the increasing number of observations with increasing year. The regression parameters are $b_1 = \pi$, $b_2 = -1/\overline{\tau}$, and $b_3 = \rho$, year variable $year_t$, author variable $author_i$, error term $\epsilon_{i,t}$ and log-normal noise factor $b_0 = \ln \eta$. The *local* reputation $R_i(t) \equiv [\Delta C_i(t)]^\rho = [C_i(t)-C_i(t-1)]^\rho$ is non-cumulative, being measured only in year t. This choice for $R(t)$ makes the regression model more amenable to controlling for yearly fixed effects. As in the first model, we ran the regression using papers with $\tau > 1$ and for observations with $\Delta c_p(t+1) > 0$ within the first 30 years of a given scientist's career.

Despite this subtle change to the regression model, which makes the regression more amenable to controlling for underlying growth trends in science, our overall results role of the reputation effect has not changed. Namely, the reputation parameter ρ plays a larger role for papers with $c < c_{\times}$, since $\pi(c \geq c_{\times}) > \pi(c < c_{\times})$ but $\rho(c \geq c_{\times}) \approx \rho(c < c_{\times})$ as summarized in Tables S23 and S24. Additionally, this second regression model constitutes an overall robustness check, since we have now tested the reputation effect using a smaller "evaluation window": in the main manuscript $R_i(t) \equiv [C_i(t)]^{\rho}$ depends on an author's *cumulative* citation tally (the net stock) up to time t, whereas in the second model, $R_i(t) \equiv [\Delta C_i(t)]^{\rho}$ depends on only the new citations arriving in the previous year (the recent change in stock). More realistically, reputation is measured by a quantity between the two extremes of $C_i(t)$ and $\Delta C_i(t)$. An open question we leave for follow-up research concerns how to measure and define an appropriate ex-post "evaluation window". Recent theoretical progress in Ref. [6] shows that the appraisal timescale, which intrinsically reflects the contract term structure, may have important implications for the sustainability of careers in science.

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Supporting Figures

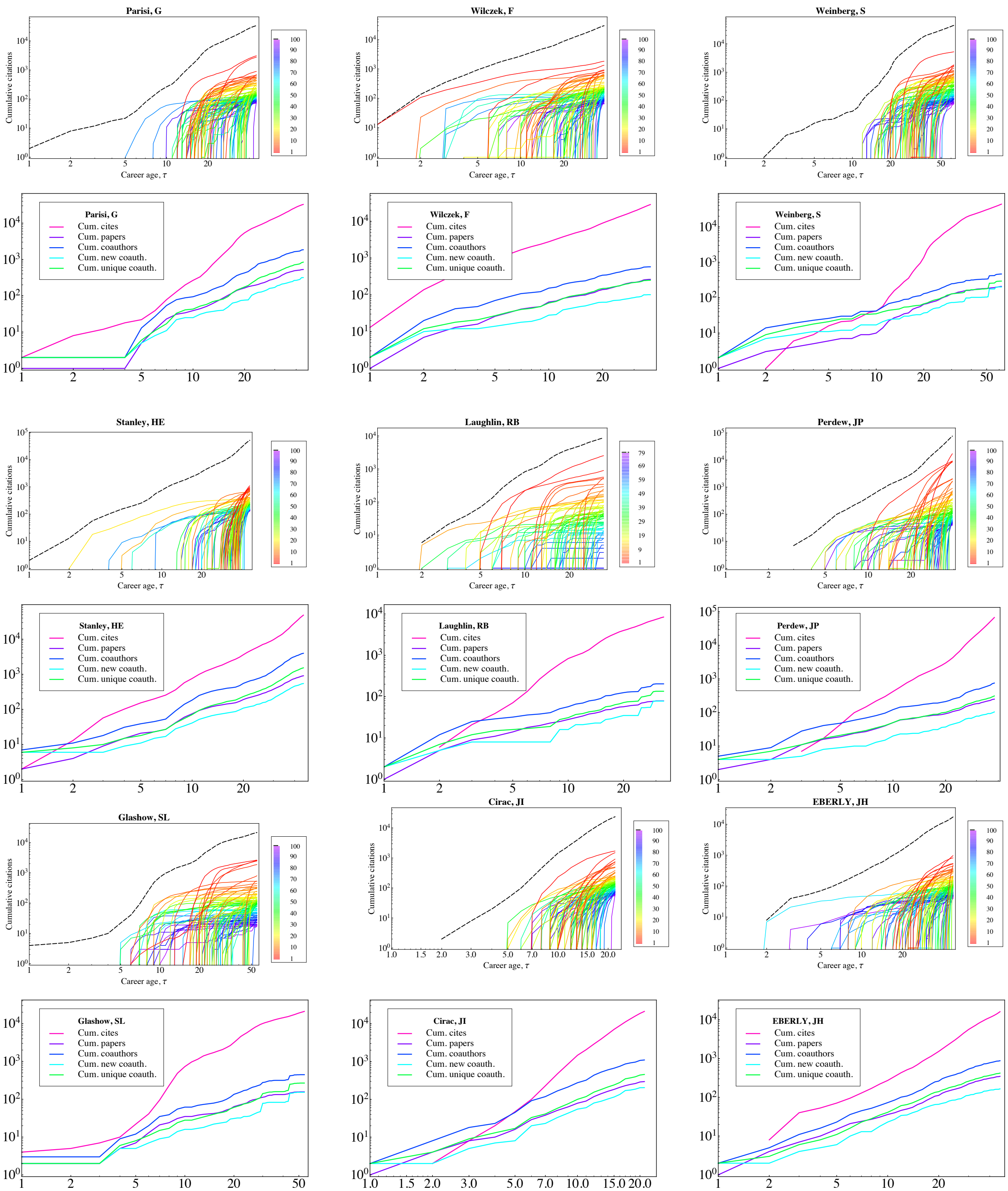

FIG. S1: Career profile of 9 physicists from dataset [A]. Only top $R = 100$ papers are shown.

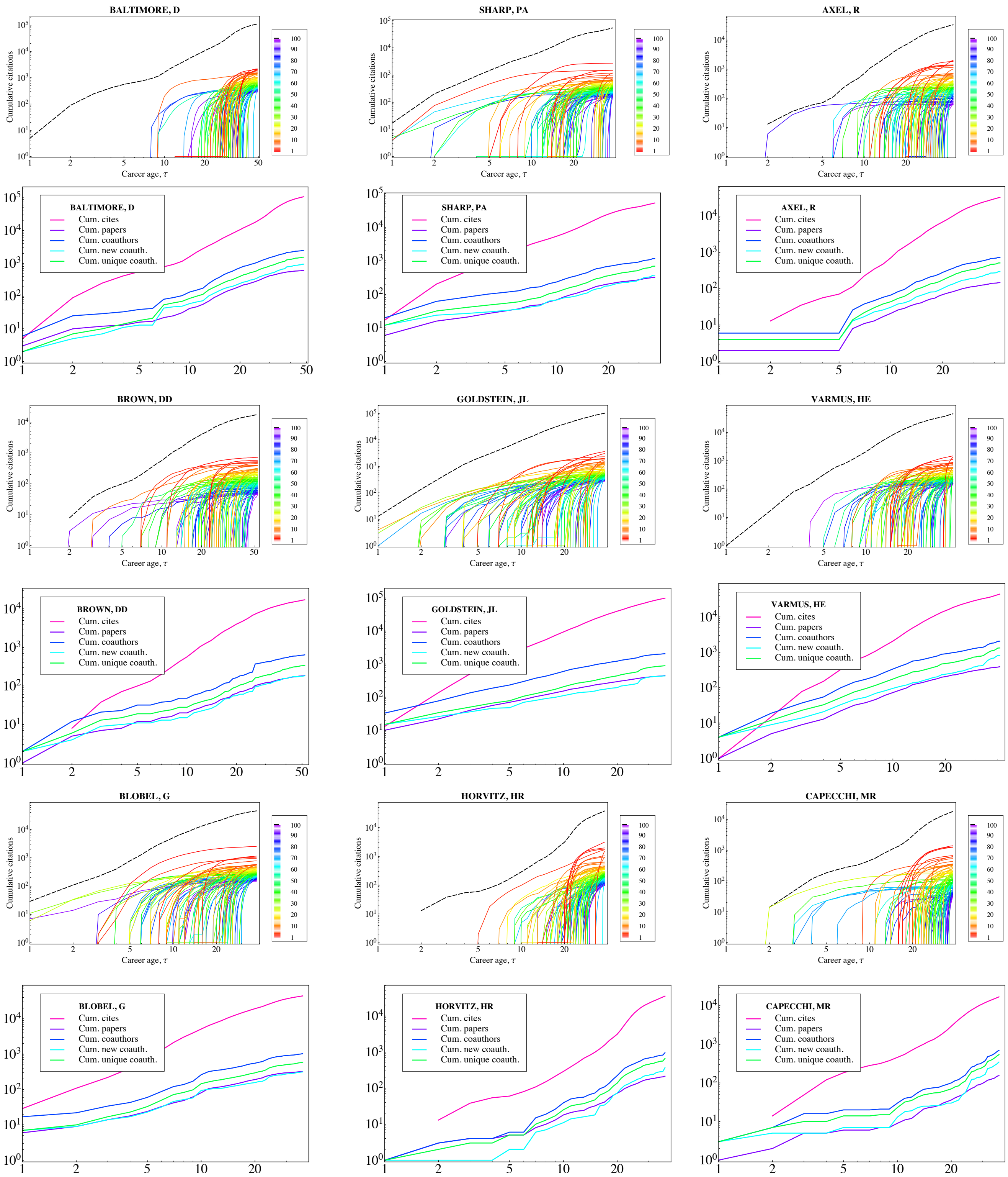

FIG. S2: Career profile of 9 biologists from dataset [D]. Only top $R = 100$ papers are shown.

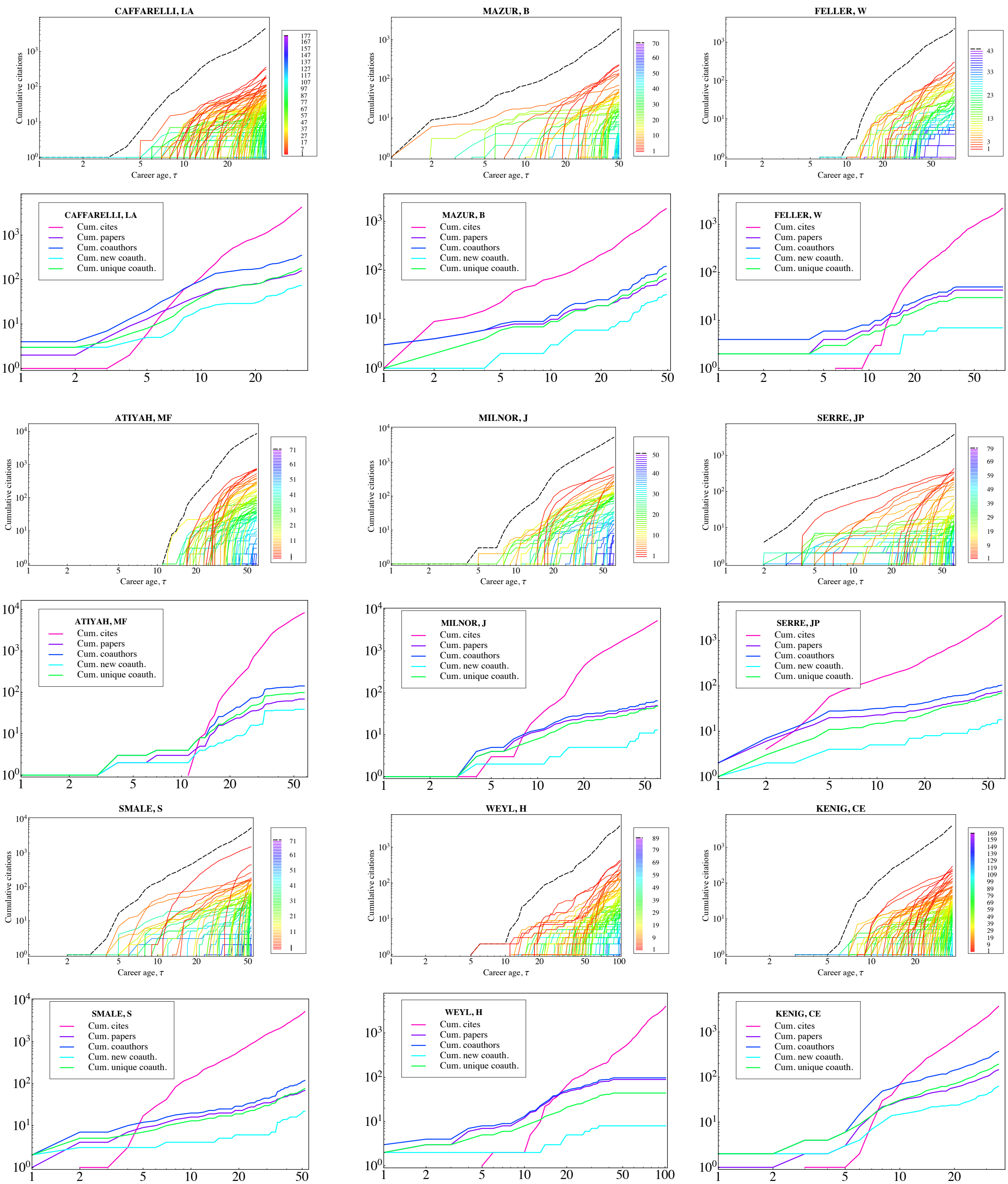

FIG. S3: Career profile of 9 mathematicians from dataset [E]. All papers are shown.

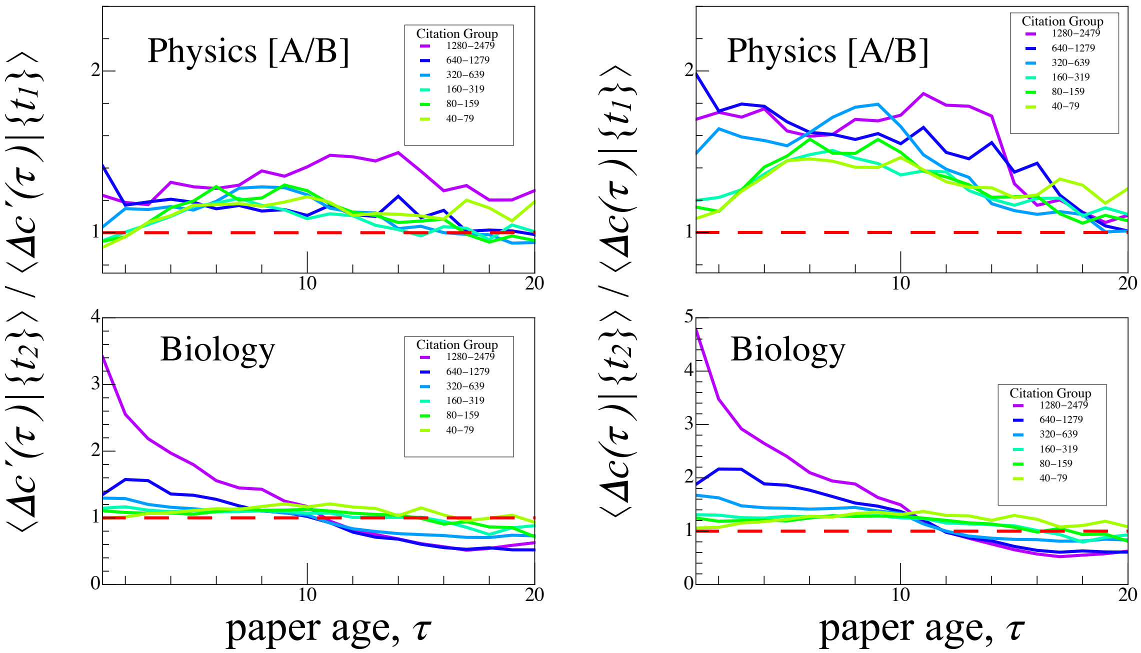

FIG. S4: Comparing citation trajectories of late career and early career papers. We compare the characteristic citation trajectory for papers published in the first 10 years of the career, $t_{p,0} \in 1-10 \equiv \{t_1\}$, and for papers published published in year $t_{p,0} \in 20-30 \equiv \{t_2\}$. For each set of papers, we compute the average citation trajectory by grouping papers with roughly the same number of eventual citations (the citation groups are listed in the figure legend). We then plot the ratio of the trajectory corresponding to period $\{t_2\}$ to the trajectory corresponding to period $\{t_1\}$. A ratio value larger than unity indicates that there is a relatively higher citation rate for papers published in period $\{t_2\}$ relative to the papers published in period $\{t_1\}$, providing further evidence for the reputation effect which becomes stronger later in the career. (Left panels) We average together the normalized trajectories, $\Delta c'_p(\tau)$. (Right panels) We average together trajectories that are not normalized, $\Delta c_p(\tau)$. Since papers within a particular citation group are roughly similar in impact, the results are consistent with the normalization method results.

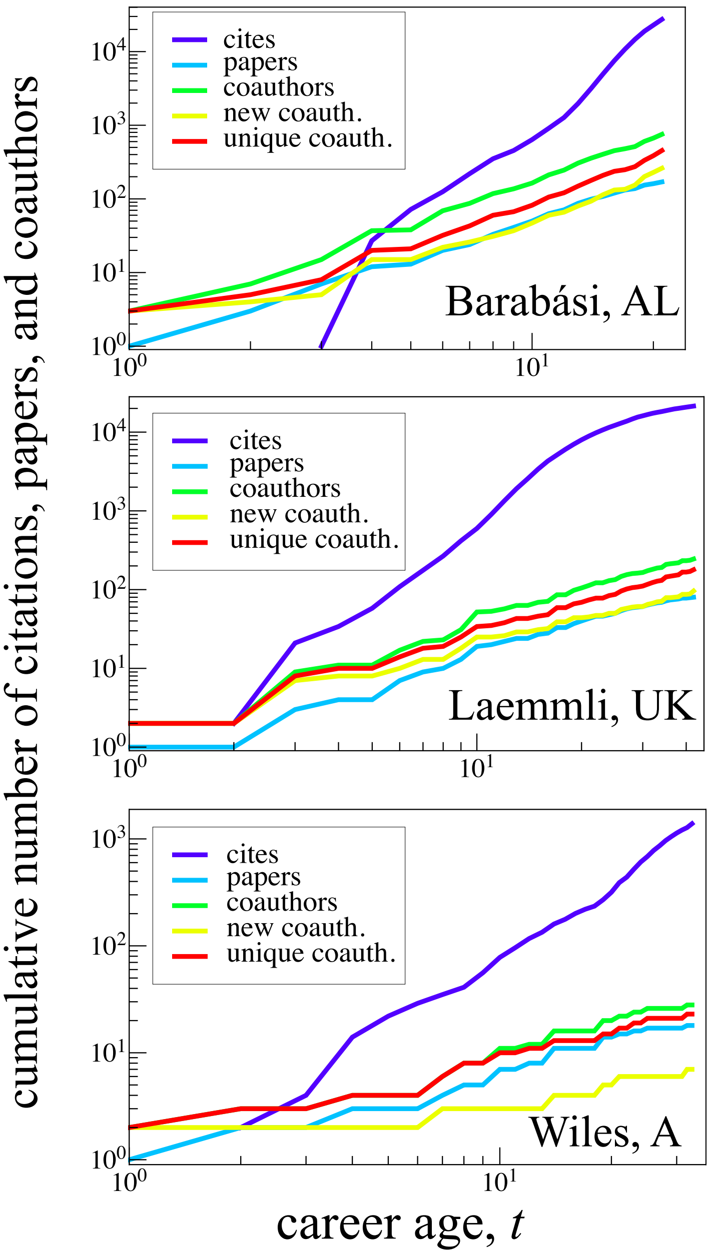

FIG. S5: Coevolution of reputation, productivity, and collaboration. The cumulative number of citations $C_i(t)$, publications $N_i(t)$, and 3 different measures for collaboration size: (1) the total cumulative coauthor count $\sum k_i$ (green), (2) the cumulative distinct coauthor count $\sum k_i(t)$ (red), and (3) the cumulative new coauthor count $\sum k_i^{new}(t)$ (yellow).

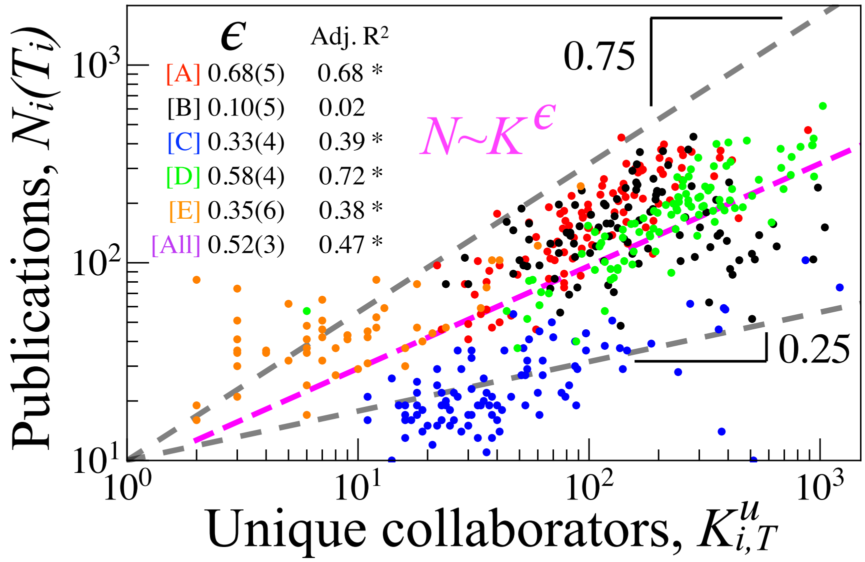

FIG. S6: Collaboration efficiency. The strong role of team management inefficiencies in science is indicated by the sub-linear scaling relation ($\epsilon < 1$) between the number of publications $N_i(T_i)$ at career age $T_i = Min[30, l_i]$ years, and the cumulative number of unique collaborators at the same career age, $K^u_{i,T}$. We perform OLS regression for each dataset scatter plot and report the estimated ϵ value (standard error in the last digit denoted in parenthesis), the adjusted R^2 for the regression where * denotes F-test p-value $< 10^{-6}$ (the p-value for dataset [B] is 0.07). The anomalous ϵ value for dataset [B] suggests that the ability to sustain high efficiency research is a important feature characteristic of the top scientists comprising datasets [A] and [D]. The dashed grey lines with scaling exponent 0.25 and 0.75 are provided as visual comparison to the scaling curve with exponent $\epsilon \approx 0.5$ calculated from all 450 careers aggregated into a single dataset.

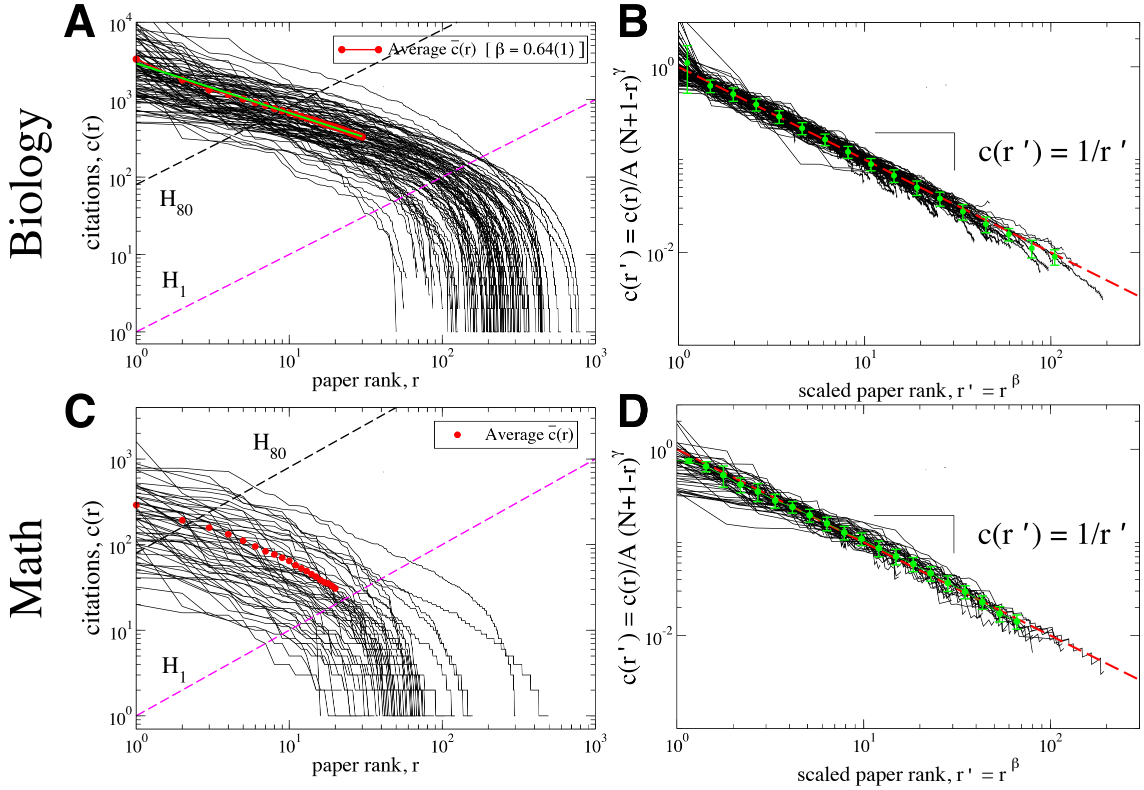

FIG. S7: Statistical regularities in the rank-citation profile. A comparison of 200 rank-citation profiles $c_i(r)$ demonstrates the statistical regularity in career publication output. Each scientist produces a collection of papers of varying impact and age between the $c_i(1)$ pillar paper down to the least-known paper $c_i(N_i)$. **(A,C)** Zipf rank-citation profiles $c_i(r)$ for 100 scientists listed in dataset [D] and [E] (see [4] for analogous plots for datasets [A], [B], and [C]). For reference, we plot the average $\bar{c}(r)$ of these 100 curves and find $\bar{c}(r) \sim r^{-\beta}$ with $\beta = 0.64 \pm 0.01$ for dataset [D]. The solid green line is a least-squares fit to $\bar{c}(r)$ over the range $1 \leq r \leq 30$. We also plot the $H_1(r)$ line ($y = x$), with which the intersection corresponds to the Hirsch h-index [57], and the $H_{80}(r)$ line ($y = 80x$) lines for reference. **(B,D)** We re-scale the curves in panel (a), plotting $c_i(r') \equiv c_i(r)/A(r_1 + 1 - r)^{\gamma}$, where we use the best-fit γ_i and A_i parameter values for each individual $c_i(r)$ profile. Using the rescaled rank value $r' \equiv r^{\beta_i}$, we show excellent data collapse onto the expected curve $c(r') = 1/r'$. Green data points correspond to the average $c(r')$ value with 1σ error bars calculated using all 100 $c_i(r')$ curves separated into logarithmically spaced bins.

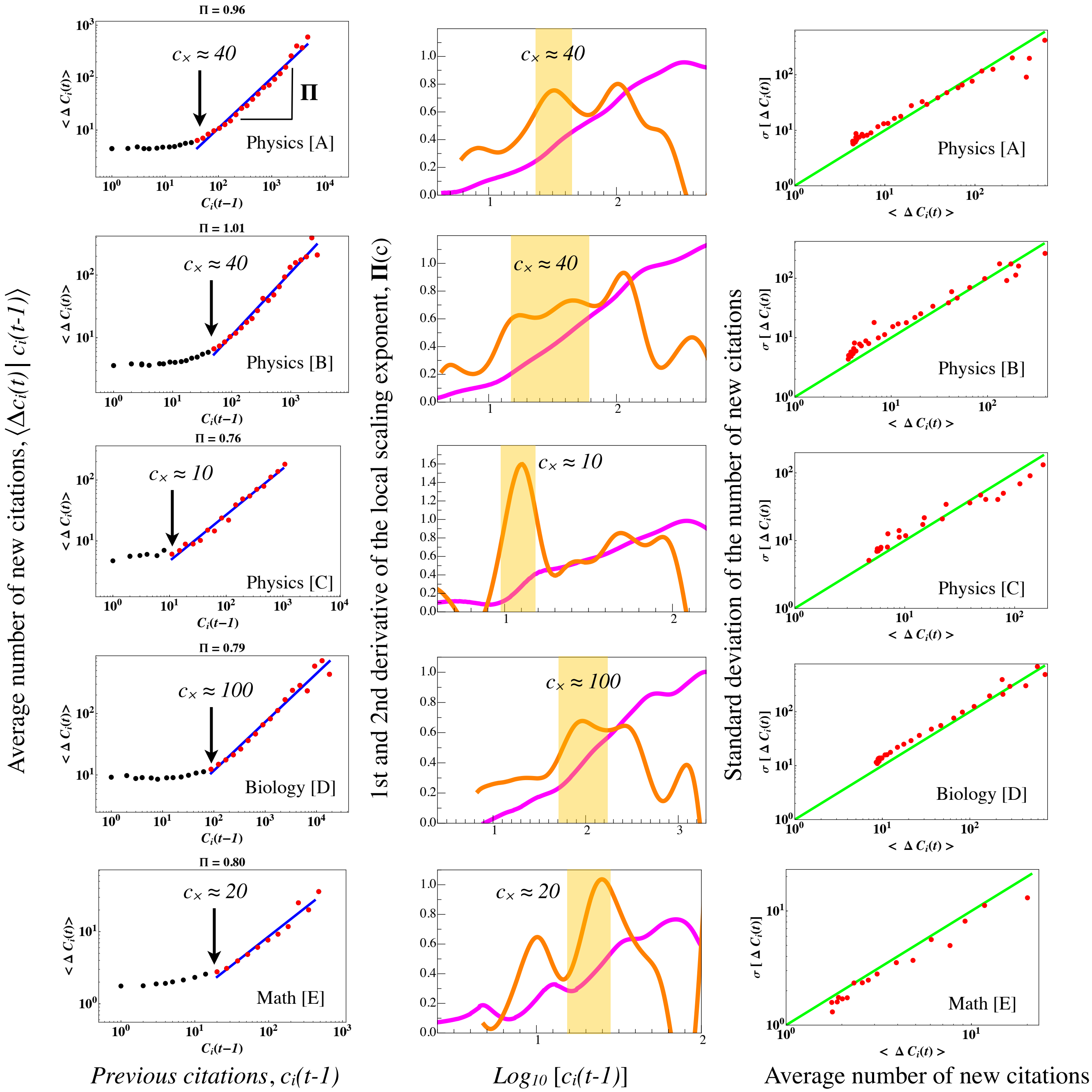

FIG. S8: Testing the preferential attachment mechanism underlying citation growth. In the left column, for each dataset, we group papers with $c_i(t-1)$ citations (using logarithmically binned subsets) and compute the average $\langle \Delta c_i(t) \rangle$ and standard deviation $\sigma[\Delta c_i(t)]$ of the number of new citations in the following year for each subset. For each discipline we observe a significant change in the citation dynamics when the paper becomes cited more than a threshold $c_\times$, which likely depends on the citation rate within the discipline. In the high-impact regime $c_i(t) > c_\times$, the unconditional model which does not account for paper age or author reputation, depicts a sub linear preferential attachment mechanism, $\Delta c_i(t) \sim c_i(t-1)^{\Pi}$. We use the crossover value $c_\times$ to test the strength of the author effect and the paper effect by regressing the reputation model for subsets of papers below and above the threshold. In the center column we compute the local scaling slope $\Pi(c)$ (magenta curve) and the second derivative $\Pi'(c)$ (orange curve) which shows a broad peak around $c \approx c_\times$. In the right column, we plot the $\langle \Delta c_i(t) \rangle$ and $\sigma[\Delta c_i(t)]$ together with the unity line $y = x$ (solid green) which fits the data quite well, suggesting that the conditional probability distributions $P(\Delta c_i(t)|c_i(t-1))$ are exponentially distributed with coefficient of variation $k_v = \sigma[...]/\langle ... \rangle \approx 1$.

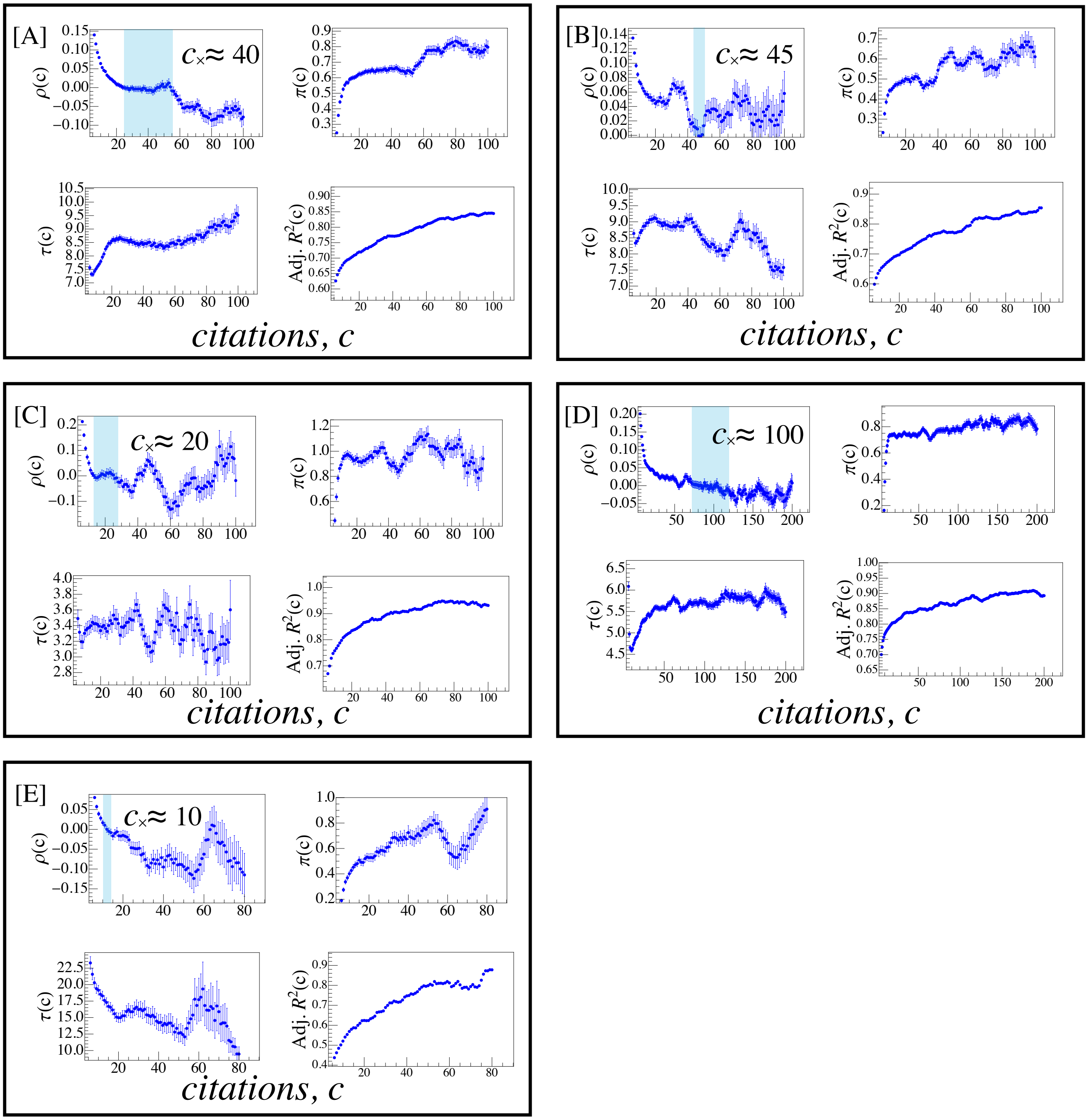

FIG. S9: Understanding the crossover $c_\times$. We test the c-dependence of the regression model parameters $\rho(c)$, $\pi(c)$, and $\tau(c)$. We aggregate all papers with citations $c(t-1) \in [c \pm 5]$ and run the multivariate regression model on each subset. We plot the $\rho(c)$, $\pi(c)$, $\tau(c)$ along with the regression standard error (indicated by error bars) and adjusted R^2 value for each subset. For each dataset, there is a range of c values (highlighted in light blue) where $\rho(c) \approx 0$ which roughly corresponds to the crossover value $c_\times$ observed qualitatively in Fig. S8.

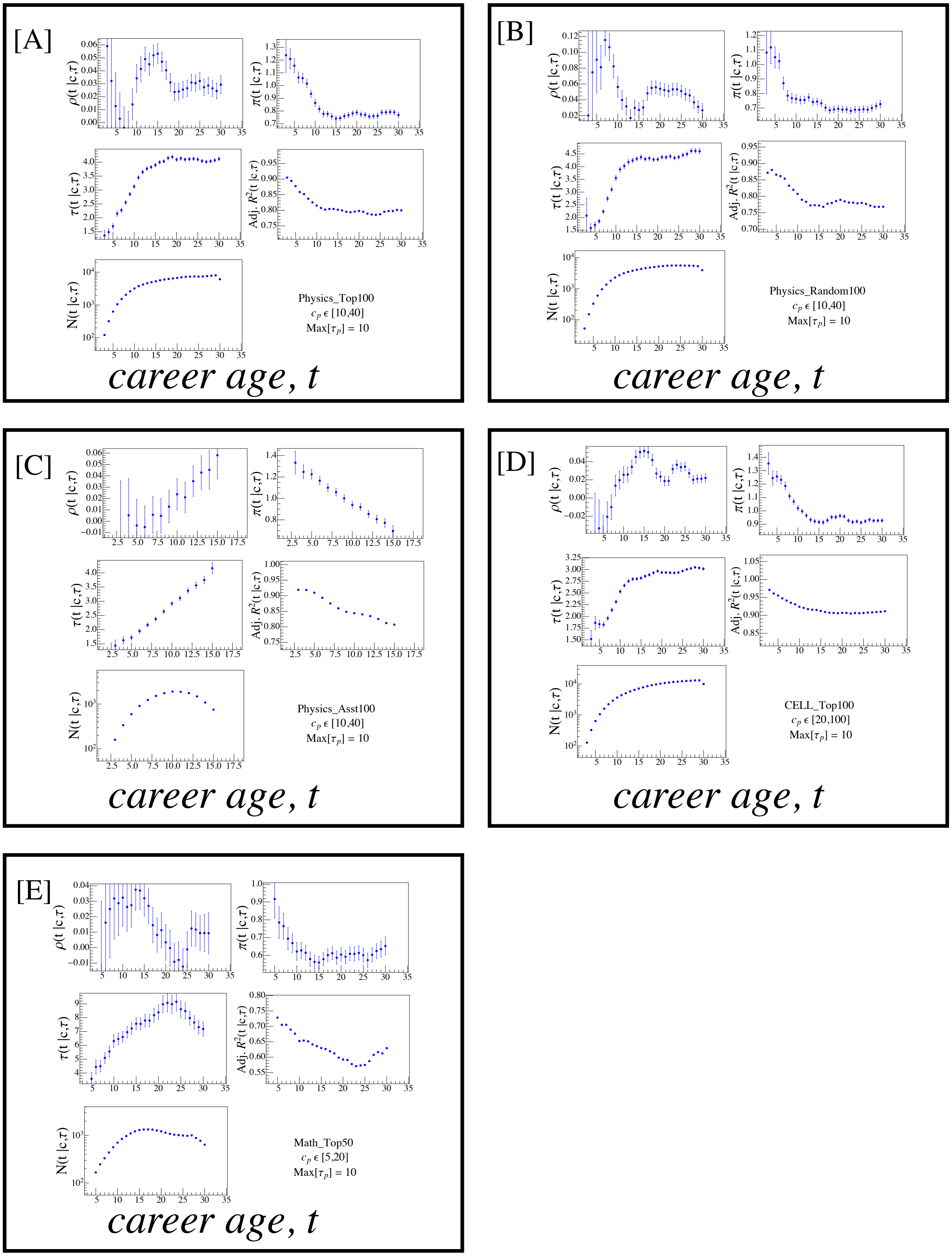

FIG. S10: Longitudinal regression. We test the t-dependence of the regression model parameters $\rho(t)$, $\pi(t)$, and $\tau(t)$. We aggregate all papers in career year $t \in [t \pm 2]$ that have $c \in [c_{min}, c_{max}]$ and are of paper age $\tau \leq \tau_{max}$, indicated in each panel, and run the multivariate regression model on each subset. We plot the $\rho(t)$, $\pi(t)$, $\tau(t)$ along with the regression standard error (indicated by error bars) and adjusted R^2 value for each subset. All datasets show a significant increase in $\rho(t)$ accompanied by significant decrease in $\pi(t)$ over the early phase of the career, which is consistent with the expectations of the cumulative reputation factor. However, datasets [A,B,E] show anomalous non-monotonicity in the reputation factor.

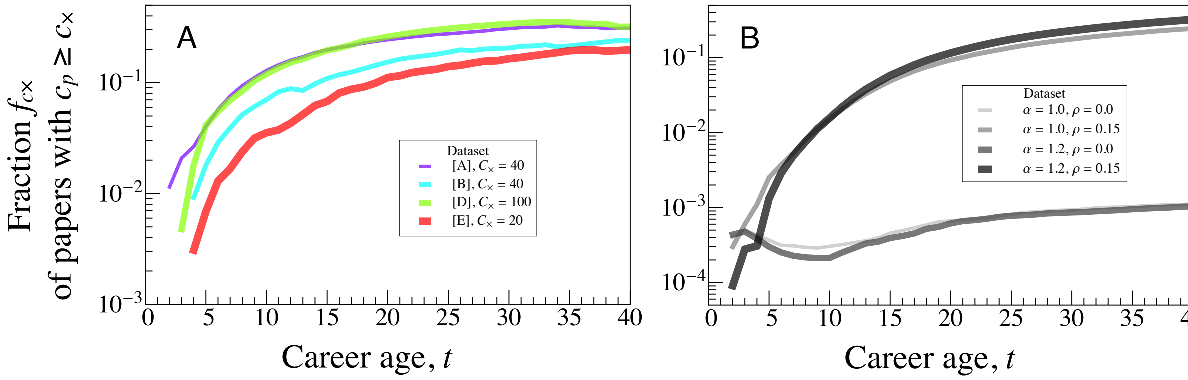

FIG. S11: Comparing the fraction $f_{\geq c_x}$ of total papers with $c_p \geq c_\times$ by career age t for real careers (A) and simulated careers (B). Simulated careers are averaged over 1000 realizations using the same parameters as described in the SI text and for $c_x \equiv 40$.

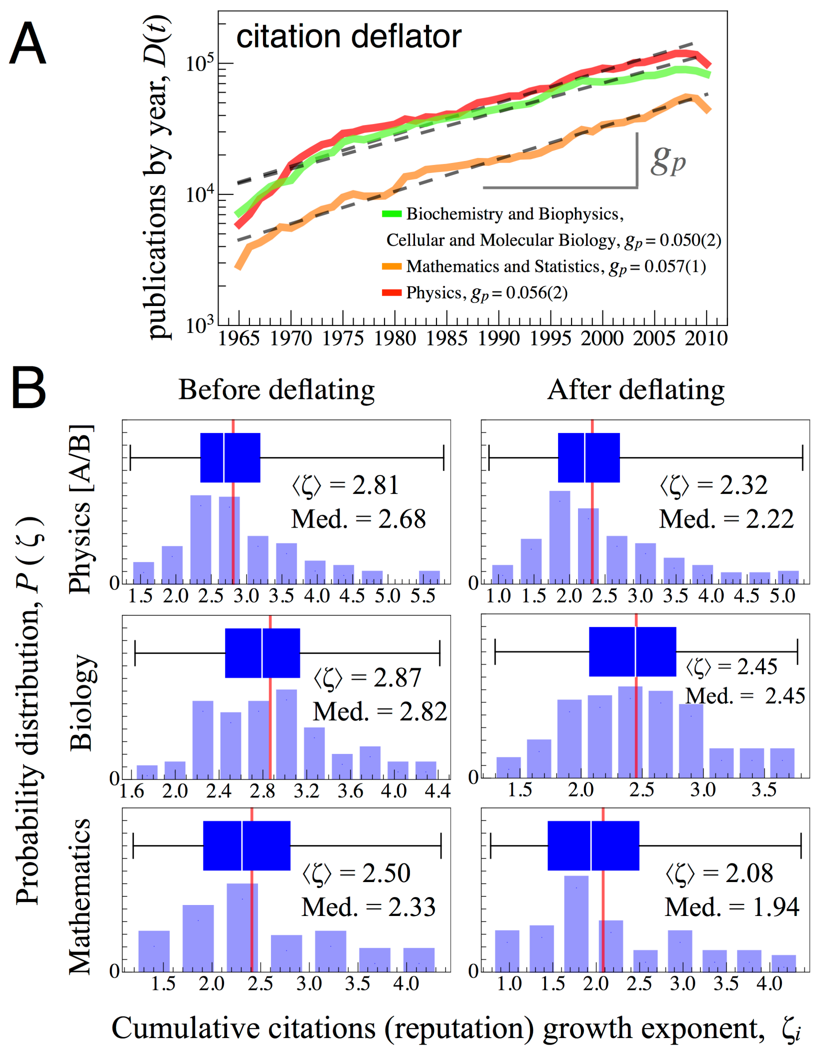

FIG. S12: Using deflated citations to remove the underlying long-term growth trends in science from the growth of $C_i(t)$. (A) We define the deflator index to be the number of publications produced per year, using three sets of TRWOS subject categories that are most pertinent to the three disciplines we analyzed (subject categories and estimated exponential growth rate g_p (per year) are listed in legend). (B) The probability distribution $P(\zeta)$ for the individual growth exponents ζ_i, before and after we deflated each scientist's total annual citation counts $\Delta C_i(t)$ by the number of papers published in the same year (see Eq. S15). Standard box-plot for each set of ζ_i values is also shown. There is roughly a 15% decrease in the ζ_i values after we control for scientific inflation.

Supporting Tables

Name	N	C	$c(1)$	h_1	N/h_1	$\langle c\rangle/h_1$	a	β	γ	α	ζ	$\lambda(2)$	$\lambda(5)$	Ξ	K_T^u	S_i	$\langle L_i\rangle$	l_i
A, E	116	13848	3339	41	2.83	2.91	8.24	1.17	0.64	0.87	2.05	11.7	18.6	0.80	30	3	3.6	58
A, I	205	15073	783	57	3.60	1.29	4.64	0.68	0.76	1.38	2.73	9.77	30.7	0.65	134	8	2.7	30
A, A	363	14996	708	63	5.76	0.66	3.78	0.66	0.55	1.57	2.90	9.01	23.4	0.57	163	13	5.0	40
A, BJ	185	18658	6267	51	3.63	1.98	7.17	0.94	0.59	1.29	2.35	5.2	15.2	0.76	93	5	5.6	59
A, PW*	344	65575	4661	103	3.34	1.85	6.18	0.91	0.73	1.19	2.45	10.5	30.	0.58	86	4	4.6	60
A, A	111	12514	1689	48	2.31	2.35	5.43	0.75	0.98	1.39	4.30	6.09	16.7	0.69	30	3	4.3	59
B, P	173	16709	3037	53	3.26	1.82	5.95	0.96	0.63	1.26	2.67	9.45	27.8	1.92	444	7	1.1	33
B, J*	141	25350	5636	57	2.47	3.15	7.80	0.94	0.81	1.01	2.09	10.4	26.7	0.49	41	3	3.5	53
B, CP	60	10960	2486	28	2.14	6.52	14.00	1.35	0.96	0.90	2.38	5.6	17.6	0.90	41	3	4.0	48
B, CWJ	265	14474	1835	58	4.57	0.94	4.30	0.80	0.55	1.74	3.05	11.3	32.4	0.44	116	12	2.1	28
B, CH	78	17715	3849	39	2.00	5.82	11.60	1.01	1.02	1.26	3.14	7.78	20.7	0.72	46	4	2.7	41
B, G*	91	15707	6280	46	1.98	3.75	7.42	1.01	0.83	1.77	3.89	13.8	54.6	1.32	92	7	3.5	36
B, K	190	21887	12906	45	4.22	2.56	10.80	1.17	0.44	1.36	2.62	9.	15.8	0.78	71	5	2.3	41
B, M	218	16279	1445	55	3.96	1.36	5.38	0.84	0.65	1.26	3.18	11.	36.4	0.37	67	5	4.0	33
C, N	140	9022	2261	43	3.26	1.50	4.88	0.77	0.69	0.85	2.23	12.6	30.7	0.98	78	5	4.6	50
C, R	267	18716	5147	66	4.05	1.06	4.30	0.74	0.62	1.58	3.64	10.9	36.5	1.45	200	14	3.0	36
C, DM	162	16307	6264	52	3.12	1.94	6.03	0.91	0.62	1.45	3.05	8.41	27.4	0.62	99	7	2.8	34
C, DJ	194	13801	1572	56	3.46	1.27	4.40	0.74	0.71	1.65	3.30	10.5	31.7	0.58	93	5	3.7	39
C, SW	469	25808	1444	82	5.72	0.67	3.84	0.77	0.53	1.35	2.09	13.8	43.2	1.94	887	81	2.9	23
C, JI	295	19894	1514	71	4.15	0.95	3.95	0.75	0.60	1.92	4.15	12.9	42.9	0.69	204	18	2.7	21
C, ML	752	50269	1588	107	7.03	0.62	4.39	0.70	0.54	1.69	2.75	7.16	17.3	0.62	114	6	4.2	62
C, PB	220	14257	1878	55	4.00	1.18	4.71	0.84	0.61	1.28	2.90	9.58	23.8	0.94	126	7	3.0	36
D, S	594	19992	2119	65	9.14	0.52	4.73	0.69	0.43	2.28	5.79	7.32	18.	0.57	211	17	2.8	38
D, SD	108	8339	744	45	2.40	1.72	4.12	0.67	0.87	1.22	2.06	13.6	35.	0.61	49	3	3.8	52
E, DE	235	13741	780	65	3.62	0.90	3.25	0.48	0.79	1.33	2.64	10.5	27.4	0.92	140	10	4.0	38
E, JH	347	15475	891	65	5.34	0.69	3.66	0.70	0.59	1.52	2.29	6.4	16.6	0.59	112	8	4.9	46
E, VJ	129	11496	1630	46	2.80	1.94	5.43	0.81	0.79	0.93	1.72	8.87	22.4	0.58	34	2	1.8	52
E, M	58	16166	12906	22	2.64	12.70	33.40	1.69	0.37	1.25	3.38	9.65	47.6	0.70	36	4	1.7	18
F, RP*	69	21058	1715	38	1.82	8.03	14.60	0.39	1.64	1.30	3.44	17.6	41.	0.93	59	2	5.2	50
F, ME	362	33076	1490	93	3.89	0.98	3.82	0.63	0.71	1.32	2.95	9.45	29.5	0.47	127	6	3.1	52
F, MPA	145	16913	2260	59	2.46	1.98	4.86	0.96	0.70	1.70	3.24	11.9	40.2	0.90	108	9	3.3	28
F, DS	137	16532	1834	61	2.25	1.98	4.44	0.72	0.85	1.28	2.83	11.2	33.5	0.75	98	5	3.0	31
G, H	193	23540	2425	77	2.51	1.58	3.97	0.80	0.74	1.31	2.41	15.2	42.1	0.47	75	6	4.6	38
G, C	128	19273	6250	51	2.51	2.95	7.41	1.05	0.70	1.33	2.91	16.5	61.6	1.63	189	12	2.7	33
G, SL*	157	20303	2548	61	2.57	2.12	5.46	1.00	0.69	1.38	2.83	20.7	48.7	0.84	78	4	7.4	51
G, AC	1064	44312	1602	108	9.85	0.39	3.80	0.69	0.47	1.70	2.15	11.7	34.	0.87	278	10	3.9	51
G, DJ*	217	24264	1722	67	3.24	1.67	5.41	0.75	0.85	1.55	3.07	23.7	70.1	0.94	145	6	3.0	44
H, FDM	89	13658	1823	44	2.02	3.49	7.05	0.93	0.88	1.25	2.71	9.75	29.9	0.46	36	3	5.5	34
H, BI	272	32647	2978	78	3.49	1.54	5.37	0.84	0.70	1.50	2.63	14.2	41.7	0.60	99	8	3.9	45
H, DR	200	18673	2482	64	3.13	1.46	4.56	0.83	0.71	1.92	4.02	13.1	35.9	0.40	55	5	4.1	49
H, TW*	398	21854	1889	70	5.69	0.78	4.46	0.69	0.59	1.41	2.60	7.04	19.7	0.81	141	10	2.9	44
H, H	78	4287	535	33	2.36	1.67	3.94	0.70	0.84	1.12	2.54	17.2	38.3	0.46	29	2	0.8	28
H, SE	200	13256	1423	56	3.57	1.18	4.23	0.78	0.69	1.39	2.18	5.94	14.8	0.55	77	8	3.9	47
H, JE	186	10380	535	52	3.58	1.07	3.84	0.63	0.70	1.75	3.47	11.4	28.	0.33	40	3	2.0	34
I, F	249	14235	1231	52	4.79	1.10	5.26	0.85	0.64	1.89	4.41	8.66	33.6	0.62	82	6	4.3	46
I, Y	241	12384	1598	52	4.63	0.99	4.58	0.87	0.57	1.58	2.89	8.34	21.7	0.50	94	6	3.1	45
J, R	229	26017	1742	74	3.09	1.54	4.75	0.75	0.80	1.02	2.31	15.7	45.	0.54	79	5	4.8	43
J, S	185	12356	3836	43	4.30	1.55	6.68	1.04	0.48	1.60	4.30	4.47	13.	1.17	78	7	3.8	44
K, HJ	241	16011	1228	62	3.89	1.07	4.17	0.66	0.79	1.45	2.74	12.3	41.2	0.62	101	9	3.2	37
K, G	211	11298	1949	47	4.49	1.14	5.11	0.81	0.55	1.98	3.40	11.1	31.2	0.85	171	12	2.5	30
Ave.	275	20368	2686	61	4.23	1.88	6.04	0.83	0.67	1.42	2.85	11.8	34.6	0.75	136	9	3.5	40
Std. Dev.	190	11381	2436	20	1.90	2.00	4.09	0.23	0.19	0.29	0.73	5.37	19.	0.31	116	9	1.1	10

TABLE S1: Career citation statistics for 100 highly-cited physicists (dataset [A]): 1-50. An asterisk * denotes Nobel Prize winner in "Physics."

Name	N	C	$c(1)$	h_1	N/h_1	$\langle c \rangle/h_1$	a	β	γ	α	ζ	$\lambda(2)$	$\lambda(5)$	Ξ	K_T^u	S_i	$\langle L_i \rangle$	l_i
L, RB*	79	7751	2271	32	2.47	3.07	7.57	1.04	0.76	1.12	2.64	14.3	46.6	1.37	78	3	1.3	30
L, PA	344	32668	3228	80	4.30	1.19	5.10	0.80	0.67	1.67	4.02	15.8	43.4	0.71	157	11	4.1	44
L, EH	234	20139	1862	62	3.77	1.39	5.24	0.82	0.65	1.56	3.41	4.85	13.9	0.50	59	4	6.4	52
L, SG	379	27530	1355	84	4.51	0.86	3.90	0.66	0.62	1.31	2.21	10.7	30.4	0.82	209	11	3.5	36
L, MD	151	11231	876	50	3.02	1.49	4.49	0.73	0.80	1.62	3.56	20.1	86.5	1.22	176	20	2.3	16
M, AH	455	17708	641	67	6.79	0.58	3.94	0.58	0.56	1.79	2.90	8.64	21.8	0.71	250	18	3.5	35
M, ND	216	10409	2741	41	5.27	1.18	6.19	1.07	0.53	1.30	3.15	5.92	13.2	0.30	33	3	5.3	51
M, RN	371	18413	1919	62	5.98	0.80	4.79	0.84	0.47	1.16	1.92	10.	22.6	0.43	145	9	3.4	35
N, DR	191	21742	1371	73	2.62	1.56	4.08	0.72	0.81	1.11	2.17	14.4	47.5	0.56	94	6	2.9	35
O, E	438	22310	2973	76	5.76	0.67	3.86	0.77	0.51	1.33	2.84	7.03	21.2	0.59	202	13	3.4	41
O, SR	146	5051	1236	26	5.62	1.33	7.47	1.14	0.53	1.01	1.36	9.07	24.7	1.21	147	8	4.7	40
P, G	529	29994	2768	81	6.53	0.70	4.57	0.82	0.49	2.10	3.00	11.	32.5	0.69	170	16	4.3	44
P, SSP	330	19184	1760	58	5.69	1.00	5.70	0.84	0.53	1.39	2.74	16.2	48.	1.34	416	28	2.4	29
P, M	435	29719	5147	85	5.12	0.80	4.11	0.76	0.53	1.50	3.41	11.	33.5	0.67	222	14	3.1	36
P, JB	298	26621	2719	75	3.97	1.19	4.73	0.83	0.61	1.46	2.24	7.26	20.1	0.75	144	10	3.1	42
P, JP	250	62338	12906	62	4.03	4.02	16.20	1.38	0.49	1.28	3.29	9.91	39.7	0.46	78	6	4.1	38
P, A	169	10053	3849	37	4.57	1.61	7.34	1.10	0.38	0.65	1.43	3.48	8.1	0.32	22	2	4.2	47
P, LN	784	24901	460	82	9.56	0.39	3.70	0.53	0.53	1.36	2.43	10.4	24.8	1.12	253	6	2.9	44
P, JC	620	23513	1330	71	8.73	0.53	4.66	0.78	0.43	1.78	2.79	6.9	19.5	0.52	169	7	4.3	54
P, HD*	71	8721	1807	35	2.03	3.51	7.12	0.70	1.11	0.93	1.53	21.8	57.	0.50	32	2	1.9	33
R, L	105	12124	3491	37	2.84	3.12	8.86	1.21	0.55	1.17	2.55	23.8	69.6	0.88	85	6	1.5	24
R, TM	345	25117	2112	81	4.26	0.90	3.83	0.69	0.68	1.48	2.41	14.1	35.5	0.66	138	10	4.6	44
S, JJ	265	7662	868	43	6.16	0.67	4.14	0.82	0.46	1.04	2.00	13.8	30.3	0.72	68	4	4.1	51
S, LM	154	9510	3062	37	4.16	1.67	6.95	1.08	0.46	1.33	3.10	9.12	28.2	0.77	103	6	3.1	39
S, GA	335	21292	1328	77	4.35	0.83	3.59	0.61	0.66	1.60	2.98	9.55	25.6	1.15	224	15	4.3	44
S, DJ	333	17958	589	71	4.69	0.76	3.56	0.59	0.64	1.11	2.19	12.2	32.2	0.54	158	12	4.9	35
S, M	415	19276	580	74	5.61	0.63	3.52	0.54	0.61	1.63	2.35	11.6	35.8	1.01	371	22	3.4	33
S, JR*	174	24689	5636	52	3.35	2.73	9.13	1.16	0.69	1.35	2.55	13.	40.3	0.90	67	3	3.6	53
S, MO	573	19269	1456	68	8.43	0.49	4.17	0.75	0.46	1.60	2.16	6.02	16.1	0.61	171	16	5.2	44
S, YR	637	26458	1038	86	7.41	0.48	3.58	0.54	0.57	1.33	1.73	7.82	22.8	0.67	255	16	3.1	46
S, DJ	242	15414	7118	49	4.94	1.30	6.42	0.94	0.47	1.86	4.04	11.8	28.2	1.06	236	19	2.6	22
S, HE	909	41505	892	100	9.09	0.46	4.15	0.61	0.52	1.60	2.41	8.89	21.2	0.63	205	16	3.6	45
S, PJ	173	19462	1700	58	2.98	1.94	5.79	0.87	0.73	1.85	3.92	20.9	61.3	0.84	100	7	2.9	35
S, R	46	8952	3491	21	2.19	9.27	20.30	1.72	0.50	1.30	4.09	38.5	143.	0.52	23	3	2.9	24
S, RH	127	9186	1526	35	3.63	2.07	7.50	1.22	0.56	1.13	2.57	7.23	23.	0.58	53	3	4.2	38
T, J	181	22501	1782	70	2.59	1.78	4.59	0.72	0.82	1.70	3.69	16.4	53.5	0.72	129	11	2.2	31
T, M	262	15755	1687	60	4.37	1.00	4.38	0.72	0.64	1.39	2.60	6.48	17.4	0.56	66	5	3.5	57
T, DC*	493	17649	1602	70	7.04	0.51	3.60	0.66	0.51	1.63	2.41	9.13	23.3	0.48	166	14	4.1	44
V, CM	253	14935	2466	58	4.36	1.02	4.44	0.92	0.57	1.06	2.46	12.5	36.1	0.54	99	6	4.1	42
W, S*	208	42287	5094	91	2.29	2.23	5.11	0.68	0.92	1.50	3.49	19.6	57.4	0.77	73	4	5.4	62
W, DA	330	16955	610	68	4.85	0.76	3.67	0.57	0.67	1.34	2.57	9.42	29.8	1.11	348	15	2.6	33
W, KW	742	24655	458	81	9.16	0.41	3.76	0.53	0.53	1.48	2.52	9.43	23.6	1.11	368	12	2.9	42
W, SR	124	9821	1511	48	2.58	1.65	4.26	0.85	0.70	1.84	3.27	11.9	38.5	0.69	70	7	4.4	29
W, F*	263	26549	1722	81	3.25	1.25	4.05	0.67	0.78	1.39	1.88	16.6	40.8	0.50	84	6	4.4	37
W, E	264	65014	2034	121	2.18	2.04	4.44	0.45	1.06	1.47	2.77	31.4	104.	0.54	141	6	4.0	34
W, WK	49	13348	3815	27	1.81	10.10	18.30	1.17	1.18	1.23	3.86	11.1	50.4	0.89	38	2	2.9	32
Y, E	172	17852	6022	49	3.51	2.12	7.44	0.92	0.65	1.13	2.36	8.06	30.6	0.99	190	9	2.1	34
Y, CN	194	23798	1537	67	2.90	1.83	5.30	0.71	0.89	1.60	3.74	17.	39.	0.47	37	2	4.8	65
Z, P	331	22263	1514	77	4.30	0.87	3.75	0.68	0.62	1.43	2.58	11.7	34.9	0.79	252	14	3.5	33
Z, A	581	36151	7861	85	6.84	0.73	5.00	0.69	0.50	1.71	3.19	9.82	26.2	0.35	138	9	3.1	38
Ave.	275	20368	2686	61	4.23	1.88	6.04	0.83	0.67	1.42	2.85	11.8	34.6	0.75	136	9	3.5	40
Std. Dev.	190	11381	2436	20	1.90	2.00	4.09	0.23	0.19	0.29	0.73	5.37	19.	0.31	116	9	1.1	10

TABLE S2: Career citation statistics for 100 highly-cited physicists (dataset [A]): 51-100. An asterisk * denotes Nobel Prize winner in "Physics."

Name	N	C	$c(1)$	h_1	N/h_1	$\langle c\rangle/h_1$	a	β	γ	α	ζ	$\lambda(2)$	$\lambda(5)$	Ξ	K_T^u	S_i	$\langle L_i\rangle$	l_i
A, P	125	5167	668	36	3.47	1.15	3.99	0.84	0.68	0.97	2.21	9.07	23.1	1.71	82	6	3.5	42
A, DE	469	18982	1819	66	7.11	0.61	4.36	0.82	0.49	1.36	2.00	7.26	19.1	0.70	220	15	3.7	44
B, RZ	143	4946	200	41	3.49	0.84	2.94	0.38	0.83	1.51	2.31	7.17	18.9	0.90	83	7	2.4	33
B, BB	252	6928	520	45	5.60	0.61	3.42	0.62	0.60	1.38	2.20	6.01	17.3	2.59	369	21	3.9	40
B, WF	73	2723	227	29	2.52	1.29	3.24	0.50	0.89	1.01	3.45	12.	30.3	2.79	137	11	3.5	51
B, AL	170	25048	4461	61	2.79	2.42	6.73	1.08	0.65	1.71	4.59	19.8	89.3	1.51	261	15	2.0	21
B, RH	87	2589	298	25	3.48	1.19	4.14	0.76	0.67	1.42	3.19	13.3	28.5	5.40	418	40	4.7	30
B, L	112	1841	107	25	4.48	0.66	2.95	0.50	0.64	1.40	2.61	7.06	17.8	1.04	101	11	3.0	21
B, K	763	35274	2726	89	8.57	0.52	4.45	0.68	0.48	1.67	3.22	9.08	26.5	0.50	283	11	3.3	43
B, KI	64	1199	124	21	3.05	0.89	2.72	0.45	0.79	0.76	1.78	5.37	14.	5.19	331	34	4.1	31
B, RW	311	7063	282	44	7.07	0.52	3.65	0.62	0.54	1.47	4.38	4.86	12.2	0.71	132	11	3.2	37
B, AJ	240	9685	1384	48	5.00	0.84	4.20	0.66	0.57	1.36	2.69	7.85	21.2	0.38	74	4	2.8	37
B, JH	334	8108	733	44	7.59	0.55	4.19	0.77	0.45	1.45	2.90	9.83	24.4	1.52	404	23	4.1	39
B, SJ	275	19230	1696	74	3.72	0.94	3.51	0.67	0.67	1.21	2.55	11.7	32.4	0.77	119	8	4.7	44
B, RA	384	9774	442	49	7.84	0.52	4.07	0.56	0.52	1.34	2.20	7.04	17.2	0.71	162	14	5.2	44
C, EM	108	6069	1306	34	3.18	1.65	5.25	1.02	0.67	1.03	3.13	12.3	35.	3.12	287	19	4.1	31
C, NJ	107	2898	255	28	3.82	0.97	3.70	0.62	0.64	1.81	3.72	7.9	24.9	0.72	87	8	1.5	19
C, NS	140	2953	166	30	4.67	0.70	3.28	0.48	0.67	1.23	1.98	4.14	9.86	3.26	249	19	4.0	42
C, G	125	10245	5600	34	3.68	2.41	8.86	0.99	0.54	1.47	2.99	5.29	16.5	0.94	68	5	3.8	41
D, C	208	19421	2693	58	3.59	1.61	5.77	1.00	0.64	1.68	4.32	18.8	76.9	2.20	355	28	1.8	25
D, TJ	361	15040	872	64	5.64	0.65	3.67	0.58	0.56	1.41	1.43	6.82	17.3	2.94	408	14	4.7	49
D, G	507	26718	1352	75	6.76	0.70	4.75	0.78	0.53	1.22	1.62	6.08	13.8	0.69	102	5	3.1	57
E, JP	101	5833	383	36	2.81	1.60	4.50	0.60	0.92	1.08	2.77	11.5	37.7	0.69	52	6	2.5	31
E, RW	188	12092	2535	40	4.70	1.61	7.56	0.96	0.68	1.55	2.20	31.9	69.	3.60	395	42	3.2	37
F, JC	113	1854	174	26	4.35	0.63	2.74	0.55	0.60	1.11	1.85	8.64	15.1	6.63	507	14	2.3	31
F, AR*	385	17615	4267	59	6.53	0.78	5.06	0.85	0.46	1.82	3.00	9.29	18.1	0.94	189	14	4.2	46
F, PA	99	5286	413	37	2.68	1.44	3.86	0.60	0.90	1.59	2.90	10.7	18.3	0.75	61	4	2.0	31
F, KJ	135	8154	406	46	2.93	1.31	3.85	0.52	0.90	1.00	1.90	11.5	31.5	2.01	128	12	3.1	45
F, ED	240	5711	532	37	6.49	0.64	4.17	0.63	0.46	1.39	2.52	11.5	27.7	5.06	979	113	3.7	25
F, D	347	15664	518	65	5.34	0.69	3.71	0.56	0.61	1.94	3.41	7.86	22.7	0.74	144	10	3.4	38
G, GW	210	13358	1199	61	3.44	1.04	3.59	0.73	0.65	1.12	2.27	8.69	20.1	0.61	83	6	4.8	39
G, DC	75	2057	342	21	3.57	1.31	4.66	0.86	0.74	1.40	2.20	11.2	33.5	1.02	89	7	2.2	25
G, W	322	7594	375	47	6.85	0.50	3.44	0.58	0.51	1.32	1.96	5.08	11.6	1.04	180	4	2.6	44
G, SC	132	4725	407	38	3.47	0.94	3.27	0.68	0.70	1.89	2.95	12.3	37.2	1.25	142	10	2.4	22
G, AM	284	6316	376	42	6.76	0.53	3.58	0.60	0.53	1.78	2.99	7.96	14.6	0.87	133	8	3.4	47
G, P	255	16210	2645	55	4.64	1.16	5.36	0.97	0.52	1.37	2.56	6.44	20.7	0.39	55	4	2.1	43
H, P	491	20518	2568	63	7.79	0.66	5.17	0.83	0.42	1.67	3.30	8.56	27.6	0.62	154	10	3.2	36
H, S	527	18490	1145	64	8.23	0.55	4.51	0.80	0.43	1.92	3.38	7.47	18.7	0.54	209	15	3.5	38
H, SW	146	25088	3444	69	2.12	2.49	5.27	0.73	0.90	1.16	2.40	12.9	38.	0.26	29	2	6.7	45
H, HJ	383	8042	232	47	8.15	0.45	3.64	0.54	0.51	1.62	2.55	6.4	16.3	0.76	269	15	3.7	31
H, F	236	12176	821	57	4.14	0.91	3.75	0.59	0.68	1.02	2.25	5.47	14.5	0.98	75	4	2.9	49
H, JJ	163	27512	5232	68	2.40	2.48	5.95	0.87	0.84	1.28	2.58	8.95	27.3	0.58	68	4	2.2	51
H, MS	279	3331	292	27	10.30	0.44	4.57	0.70	0.38	1.59	3.06	3.58	8.45	0.76	207	13	3.9	35
H, CE	151	6326	403	42	3.60	1.00	3.59	0.63	0.67	1.46	2.85	13.7	34.9	6.51	1049	107	3.5	27
I, J	147	5831	1028	40	3.68	0.99	3.64	0.85	0.57	0.90	1.89	8.48	24.4	0.76	122	6	4.4	32
J, PK	423	7661	212	42	10.10	0.43	4.34	0.48	0.49	1.43	2.21	4.53	9.96	0.61	160	11	4.1	42
K, LP	188	17057	2007	54	3.48	1.68	5.85	0.87	0.77	1.47	2.93	14.	39.8	0.83	74	4	4.1	51
K, E	231	8413	839	47	4.91	0.77	3.81	0.72	0.55	1.62	2.90	7.76	24.2	0.89	197	15	2.5	25
K, W	172	18752	2763	63	2.73	1.73	4.72	0.74	0.79	1.66	3.45	23.2	68.4	0.81	129	10	1.9	27
K, DV	78	1112	106	19	4.11	0.75	3.08	0.68	0.56	1.26	2.82	5.75	13.2	0.43	30	2	3.7	25
Ave.	215	9219	1024	44	4.86	1.01	4.22	0.70	0.62	1.42	2.77	9.8	27.	2.09	227	20	3.3	36
Std. Dev.	120	6869	1158	14	1.90	0.54	1.23	0.16	0.14	0.26	0.70	6.13	20.9	4.21	265	46	1.0	10

TABLE S3: Career citation statistics for 100 highly-cited physicists (dataset [B]): 1-50. An asterisk * denotes Nobel Prize winner in "Physics."

Name	N	C	$c(1)$	h_1	N/h_1	$\langle c\rangle/h_1$	a	β	γ	α	ζ	$\lambda(2)$	$\lambda(5)$	Ξ	K_T^u	S_i	$\langle L_i\rangle$	l_i
K, TR	161	5394	549	35	4.60	0.96	4.40	0.75	0.56	1.55	2.26	6.	15.4	0.34	44	5	3.7	30
K, L	268	10661	3016	49	5.47	0.81	4.44	0.84	0.45	1.46	2.12	5.84	15.3	0.34	47	4	3.1	50
K, W	164	3309	193	32	5.13	0.63	3.23	0.56	0.57	1.59	2.68	8.17	22.2	0.87	165	9	3.0	26
K, WR	111	15302	2535	45	2.47	3.06	7.56	0.80	0.95	1.56	4.33	43.4	141.	4.44	522	40	5.7	32
L, RB	157	6244	571	39	4.03	1.02	4.11	0.76	0.70	1.56	3.49	15.7	36.5	1.15	147	8	3.6	45
L, P	255	6264	300	41	6.22	0.60	3.73	0.59	0.54	1.21	2.33	6.01	15.3	0.57	91	6	3.5	44
L, MJ	180	2110	298	21	8.57	0.56	4.78	0.82	0.56	1.75	3.35	11.1	25.1	3.51	322	70	3.6	24
L, M	240	7535	535	43	5.58	0.73	4.08	0.74	0.49	1.61	2.55	6.3	14.5	0.63	116	8	5.2	42
L, AJ *	152	14577	2261	42	3.62	2.28	8.26	1.23	0.56	1.17	2.67	10.4	29.3	0.39	24	2	3.1	46
L, RA	190	5481	489	36	5.28	0.80	4.23	0.78	0.57	1.17	2.02	3.78	8.25	1.81	196	16	4.0	42
L, H	234	6277	279	42	5.57	0.64	3.56	0.55	0.57	1.40	2.48	7.99	20.4	0.77	160	17	2.3	23
L, MS	143	2379	319	24	5.96	0.69	4.13	0.89	0.51	1.44	2.65	4.33	10.3	1.85	164	8	4.1	48
M, L	264	13179	863	57	4.63	0.88	4.06	0.74	0.65	1.54	2.55	5.97	15.7	0.27	51	5	2.2	44
M, BT	244	9633	686	52	4.69	0.76	3.56	0.59	0.62	1.21	2.44	4.65	10.6	0.76	148	10	4.0	37
M, P	398	5915	372	38	10.50	0.39	4.10	0.72	0.40	1.71	2.80	6.57	17.4	0.97	197	14	5.2	42
M, DE	107	6011	865	40	2.68	1.40	3.76	0.63	0.83	1.48	2.61	14.2	34.6	0.99	116	10	2.7	37
M, JE	176	8053	572	44	4.00	1.04	4.16	0.80	0.61	1.64	2.40	8.71	25.1	3.68	627	10	2.1	36
M, GE	420	10571	862	52	8.08	0.48	3.91	0.64	0.44	1.09	1.75	5.41	15.5	0.90	184	8	3.2	39
N, AHC	158	3509	431	30	5.27	0.74	3.90	0.78	0.49	1.76	3.42	13.7	27.8	0.84	124	10	2.7	20
O, V	104	6588	663	40	2.60	1.58	4.12	0.58	0.88	2.17	4.64	31.	121.	37.70	935	435	1.7	11
O, SA	150	9554	538	53	2.83	1.20	3.40	0.50	0.87	1.42	2.67	5.55	16.4	0.88	107	6	4.0	44
P, VM	83	2089	254	24	3.46	1.05	3.63	0.68	0.63	1.50	3.35	7.73	20.6	1.02	71	10	1.7	17
P, CJ	184	8877	522	49	3.76	0.98	3.70	0.64	0.68	1.58	2.80	7.11	17.2	0.79	86	7	4.5	45
P, PM	204	8569	432	50	4.08	0.84	3.43	0.58	0.70	1.41	2.84	6.59	15.6	0.67	74	5	4.6	51
P, VL	137	2932	433	27	5.07	0.79	4.02	0.74	0.53	1.11	1.95	5.04	11.	0.59	47	3	4.5	45
P, CY	118	3214	548	25	4.72	1.09	5.14	0.87	0.45	1.04	2.42	9.05	22.8	8.18	508	12	3.1	45
R, AR	113	5257	295	36	3.14	1.29	4.06	0.63	0.75	1.56	3.29	17.9	42.7	16.70	2012	65	2.9	29
S, BEA	284	4937	337	38	7.47	0.46	3.42	0.59	0.48	1.06	2.14	3.78	7.73	0.44	93	8	2.7	37
S, RD	121	4585	449	37	3.27	1.02	3.35	0.53	0.80	1.41	2.44	10.6	25.5	6.27	649	72	2.8	28
S, F	266	10047	636	53	5.02	0.71	3.58	0.67	0.57	1.91	5.77	11.8	34.1	1.07	190	17	3.3	28
S, WD	45	1330	154	21	2.14	1.41	3.02	0.40	0.93	1.53	2.17	12.2	26.3	2.92	97	27	2.1	31
S, J	77	3254	643	28	2.75	1.51	4.15	0.89	0.69	1.33	3.53	18.2	69.8	1.47	121	24	0.8	10
S, L	108	4026	440	30	3.60	1.24	4.47	0.78	0.71	1.17	2.35	7.51	24.7	0.44	50	3	2.9	31
S, GF*	202	26489	3501	52	3.88	2.52	9.80	1.23	0.56	1.49	3.39	12.1	32.2	2.03	302	12	3.2	41
S, D	363	7894	238	45	8.07	0.48	3.90	0.57	0.50	1.89	2.74	5.52	15.1	0.55	166	14	2.8	29
S, KR	211	7371	482	48	4.40	0.73	3.20	0.68	0.60	1.42	3.24	7.	20.6	0.65	80	5	4.6	37
S, EA	272	12743	882	50	5.44	0.94	5.10	0.78	0.58	1.27	2.96	6.39	18.4	0.53	54	3	4.6	58
S, S	220	9322	2280	45	4.89	0.94	4.60	0.80	0.49	1.22	2.50	9.24	24.1	0.55	118	8	3.2	34
S, A	158	16325	1760	59	2.68	1.75	4.69	0.72	0.81	1.58	3.62	23.3	60.	1.09	110	7	2.5	32
S, S	220	4178	577	31	7.10	0.61	4.35	0.91	0.39	1.42	2.48	6.03	16.7	1.11	195	13	2.0	27
T, MA	123	1304	119	21	5.86	0.50	2.96	0.65	0.54	1.44	2.35	6.87	15.	1.59	154	13	3.2	31
T, LJ	138	3494	228	33	4.18	0.77	3.21	0.56	0.64	1.32	2.79	6.89	19.6	2.09	247	22	2.7	22
T, D	315	11639	569	59	5.34	0.63	3.34	0.59	0.61	1.37	2.69	8.81	24.6	0.49	161	9	2.6	30
T, MS	246	17261	2888	63	3.90	1.11	4.35	0.76	0.61	1.44	2.76	16.3	43.	1.28	278	10	3.1	31
V, JJM	131	5524	491	42	3.12	1.00	3.13	0.57	0.72	1.70	3.93	9.41	26.	0.52	55	5	2.4	30
W, IA	209	4156	383	35	5.97	0.57	3.39	0.70	0.52	1.60	2.72	7.34	19.7	0.87	194	12	3.1	27
W, RE	261	12111	880	54	4.83	0.86	4.15	0.72	0.60	1.32	2.47	6.12	17.5	0.46	87	8	4.4	50
W, RB	185	5611	375	40	4.63	0.76	3.51	0.63	0.61	1.21	2.59	7.06	16.2	2.66	545	8	3.6	39
W, H	240	11408	657	60	4.00	0.79	3.17	0.57	0.71	1.35	2.55	8.41	23.1	3.67	447	16	3.7	43
W, JA	120	2722	196	31	3.87	0.73	2.83	0.54	0.68	0.97	2.23	6.48	18.5	2.94	335	33	2.3	24
Ave.	215	9219	1024	44	4.86	1.01	4.22	0.70	0.62	1.42	2.77	9.8	27.	2.09	227	20	3.3	36
Std. Dev.	120	6869	1158	14	1.90	0.54	1.23	0.16	0.14	0.26	0.70	6.13	20.9	4.21	265	46	1.0	10

TABLE S4: Career citation statistics for 100 highly-cited physicists (dataset [B]): 51-100. An asterisk * denotes Nobel Prize winner in "Physics."

Name	N	C	$c(1)$	h_1	N/h_1	$\langle c\rangle/h_1$	a	β	γ	α	ζ	$\lambda(2)$	$\lambda(5)$	Ξ	K_T^u	S_i	$\langle L_i\rangle$	l_i
A, AG	64	1009	135	16	4.00	0.99	3.94	0.81	0.59	1.72	3.46	6.04	15.3	1.07	60	5	0.6	19
A, MW	32	268	53	10	3.20	0.84	2.68	1.12	0.44	1.69	2.93	4.77	11.1	10.20	252	35	1.1	11
A, A	50	1169	112	18	2.78	1.30	3.61	0.70	0.86	1.35	2.88	10.9	36.7	1.71	72	11	0.9	13
A, J	17	250	83	8	2.13	1.84	3.91	0.54	1.06	1.38	4.25	7.53	26.7	0.85	16	4	0.3	8
A, BP	18	2472	825	13	1.38	10.60	14.60	1.17	1.28	1.20	3.79	19.8	91.3	1.67	32	4	1.5	17
A, NP	39	1370	208	17	2.29	2.07	4.74	0.69	1.12	1.00	2.09	11.6	39.2	2.54	102	24	1.6	11
B, A	51	2202	440	21	2.43	2.06	4.99	0.97	0.76	1.68	3.48	18.7	71.6	2.84	126	35	0.5	10
B, DR	55	1245	208	18	3.06	1.26	3.84	0.71	0.59	1.63	2.78	9.66	24.	1.62	80	10	1.3	13
B, M	71	10032	1153	40	1.78	3.53	6.27	0.73	0.98	1.96	4.07	42.7	119.	5.17	441	163	1.3	13
B, BA	55	1345	260	16	3.44	1.53	5.25	0.84	0.64	1.20	2.46	11.5	37.1	0.93	47	8	1.3	10
B, MD	17	162	25	8	2.13	1.19	2.53	0.93	0.37	1.30	2.24	4.	10.3	1.76	30	4	0.7	11
B, BB	35	646	216	14	2.50	1.32	3.30	0.76	0.87	0.99	2.74	7.96	23.3	3.65	118	20	2.5	17
B, SK	35	729	198	12	2.92	1.74	5.06	0.92	0.71	1.34	3.16	10.1	27.8	0.89	32	6	1.5	11
B, D	13	894	422	7	1.86	9.82	18.20	1.12	1.14	0.49	1.68	15.3	63.7	2.21	33	6	0.9	10
B, M	17	578	225	11	1.55	3.09	4.78	0.67	1.11	1.41	2.81	16.5	64.7	3.71	61	10	0.7	9
B, J	19	252	43	10	1.90	1.33	2.52	0.27	0.96	0.74	1.67	8.27	19.4	1.69	33	8	1.1	7
B, R	24	644	428	9	2.67	2.98	7.95	1.40	0.56	1.33	2.67	8.29	32.9	0.87	14	4	2.5	14
C, I	27	1492	600	12	2.25	4.60	10.40	1.50	0.76	1.41	3.77	17.2	84.6	2.75	61	8	1.1	14
C, AL	81	4249	833	33	2.45	1.59	3.90	0.62	0.80	1.91	3.50	19.4	64.3	3.81	267	36	2.0	14
C, NJ	64	1432	343	17	3.76	1.32	4.96	1.13	0.56	1.30	2.27	11.9	37.5	2.54	142	17	1.4	15
D, AJ	27	620	200	11	2.45	2.09	5.12	1.03	0.60	1.23	3.36	10.5	40.4	1.97	53	9	1.0	9
D, C	37	712	124	14	2.64	1.37	3.63	0.67	0.86	0.88	2.64	8.86	32.3	1.34	52	11	0.9	7
D, M	32	1452	431	16	2.00	2.84	5.67	0.94	0.87	1.41	2.10	11.9	51.1	2.15	63	14	0.7	9
D, RD	15	1940	1036	10	1.50	12.90	19.40	1.90	0.32	1.10	3.07	7.92	36.	1.77	23	5	1.8	16
D, R	31	987	142	16	1.94	1.99	3.86	0.48	1.06	1.42	2.79	13.4	39.4	0.67	22	5	1.6	11
D, MVG	11	623	152	9	1.22	6.29	7.69	0.05	2.10	1.28	3.21	22.3	60.7	3.46	36	10	1.0	9
E, DA	24	631	146	15	1.60	1.75	2.80	0.61	0.71	1.39	3.15	10.3	30.6	1.60	31	4	1.4	12
E, H	24	793	151	14	1.71	2.36	4.05	0.57	1.11	0.91	2.85	16.5	53.9	0.91	22	5	1.2	8
F, A	56	738	89	16	3.50	0.82	2.88	0.67	0.73	1.06	2.15	7.23	14.1	1.25	74	12	1.5	11
F, F	33	1042	216	16	2.06	1.97	4.07	0.84	0.74	1.33	2.72	20.5	16.	12.10	646	3	2.0	14
F, GA	36	592	87	15	2.40	1.10	2.63	0.59	0.98	1.65	2.52	7.68	25.6	1.60	43	5	1.1	10
F, DP	74	17020	5611	47	1.57	4.89	7.70	0.79	1.14	1.64	2.50	59.4	177.	13.40	575	112	1.7	13
G, VM	23	458	175	12	1.92	1.66	3.18	0.75	0.55	1.41	4.17	7.81	11.2	0.81	19	2	1.7	12
G, ML	23	1029	244	14	1.64	3.20	5.25	0.50	1.62	1.02	2.49	16.	61.2	3.46	66	10	1.0	13
G, M	14	1576	965	7	2.00	16.10	32.20	2.50	0.07	0.98	3.28	11.7	91.6	1.31	19	4	1.4	10
G, GH	53	1720	318	21	2.52	1.55	3.90	0.73	0.92	1.39	2.42	13.6	28.9	2.11	109	14	2.9	17
H, H	50	2499	364	21	2.38	2.38	5.67	0.98	0.96	1.67	3.40	19.4	64.2	2.23	77	16	1.1	12
H, F	39	1013	208	16	2.44	1.62	3.96	0.77	0.69	1.46	2.89	10.9	37.6	1.84	81	8	1.5	12
H, M	12	54	15	5	2.40	0.90	2.16	1.20	0.17	1.05	4.92	3.	6.6	1.60	16	2	1.6	17
H, ER	15	413	91	10	1.50	2.75	4.13	0.30	1.50	1.27	2.54	12.8	44.	2.24	30	6	1.5	8
I, A	16	289	64	10	1.60	1.81	2.89	0.56	1.33	1.32	2.52	14.	33.7	1.25	23	4	1.5	8
I, MF	30	1442	586	15	2.00	3.20	6.41	0.80	0.98	1.64	5.21	10.6	47.1	1.88	54	10	1.0	14
J, P	22	1075	244	13	1.69	3.76	6.36	0.54	1.05	1.29	4.38	28.6	66.2	3.96	50	10	0.6	12
J, E	22	1469	332	17	1.29	3.93	5.08	0.39	1.37	0.99	2.95	21.8	50.6	5.76	100	13	1.5	11
J, AN	29	466	79	15	1.93	1.07	2.07	0.32	0.98	1.29	2.17	8.18	24.8	1.00	28	6	1.3	8
K, E	21	1934	377	15	1.40	6.14	8.60	0.84	0.90	1.04	2.50	21.1	74.1	1.05	24	3	1.4	12
K, HG	50	655	73	15	3.33	0.87	2.91	0.59	0.81	1.84	3.31	6.13	19.2	1.38	67	8	1.7	12
K, J	28	1711	495	16	1.75	3.82	6.68	1.02	0.71	1.48	3.42	23.	86.4	1.70	44	6	1.3	12
K, EA	27	336	39	12	2.25	1.04	2.33	0.31	1.00	1.26	2.91	10.5	13.2	2.23	63	10	0.3	8
K, I	19	384	88	10	1.90	2.02	3.84	0.68	0.95	0.76	1.69	9.38	19.9	1.00	21	4	1.7	11
Ave.	33	1334	326	14	2.26	3.35	6.15	0.79	0.89	1.29	2.88	15.8	48.7	3.43	110	22	1.3	12
Std. Dev.	19	2022	596	7	0.86	4.57	6.21	0.38	0.36	0.31	0.83	13.2	49.2	5.94	188	65	0.6	3

TABLE S5: Career citation statistics for 100 physics assistant professors (dataset [C]): 1-50.

Name	N	C	$c(1)$	h_1	N/h_1	$\langle c\rangle/h_1$	a	β	γ	α	ζ	$\lambda(2)$	$\lambda(5)$	Ξ	K_T^u	S_i	$\langle L_i\rangle$	l_i
K, SM	15	395	71	10	1.50	2.63	3.95	0.29	1.07	1.18	2.48	15.2	44.8	1.31	20	5	1.1	7
K, AA	11	1028	383	9	1.22	10.40	12.70	0.67	1.49	0.85	2.27	14.3	60.3	1.39	14	5	2.0	11
K, IN	42	1815	567	20	2.10	2.16	4.54	0.78	0.72	1.50	6.54	14.2	52.4	2.02	78	10	1.3	16
L, A	21	289	69	9	2.33	1.53	3.57	0.68	0.85	1.37	2.31	8.28	13.3	0.63	16	2	2.1	11
L, LJ	18	815	290	9	2.00	5.03	10.10	0.93	1.30	0.68	2.11	13.9	57.3	1.80	32	5	1.8	11
L, RL	44	879	91	16	2.75	1.25	3.43	0.52	0.84	1.50	2.87	7.51	20.9	1.78	80	8	1.4	18
L, BJ	19	591	156	8	2.38	3.89	9.23	1.40	0.72	1.28	2.44	9.05	24.7	1.60	18	8	0.0	8
L, J	36	881	93	17	2.12	1.44	3.05	0.50	0.55	1.50	2.33	7.28	17.7	0.63	19	2	2.7	21
L, Y	14	648	177	11	1.27	4.21	5.36	0.90	0.53	1.24	2.81	11.4	42.9	1.19	16	3	1.7	11
M, O	22	151	32	5	4.40	1.37	6.04	1.10	0.23	0.89	2.04	4.06	9.38	3.22	60	7	1.0	15
M, V	80	2038	206	24	3.33	1.06	3.54	0.76	0.88	2.11	2.45	24.3	60.2	20.60	1312	581	0.8	11
M, BA	19	378	202	9	2.11	2.21	4.67	1.09	0.41	1.31	3.91	9.54	26.7	1.61	37	8	0.0	11
M, L	18	966	345	13	1.38	4.13	5.72	0.39	1.51	1.07	2.19	29.6	60.7	1.35	25	6	0.8	8
M, P	15	723	180	10	1.50	4.82	7.23	0.74	1.58	0.85	3.04	17.7	60.8	1.35	22	5	0.9	10
M, D	24	1029	283	12	2.00	3.57	7.15	1.22	1.01	1.31	3.50	18.1	55.8	8.58	191	3	1.0	13
M, B	16	132	60	5	3.20	1.65	5.28	1.53	0.51	0.91	1.90	10.3	8.67	49.70	530	129	0.7	12
M, E	38	374	77	10	3.80	0.98	3.74	0.78	0.51	1.57	2.52	6.6	15.1	3.16	117	26	0.7	7
M, OI	36	716	90	15	2.40	1.33	3.18	0.44	1.06	1.32	3.21	8.46	24.1	1.11	39	5	0.9	14
M, AE	44	1695	303	18	2.44	2.14	5.23	1.02	0.73	1.38	3.59	12.1	48.2	0.69	33	6	1.1	12
N, D	45	1427	231	19	2.37	1.67	3.95	0.70	1.01	1.74	3.49	18.6	50.6	2.43	97	17	1.3	11
N, A	25	759	116	16	1.56	1.90	2.96	0.26	0.93	1.38	2.73	13.5	33.	2.18	82	6	0.8	11
N, V	7	1536	1174	6	1.17	36.60	42.70	0.97	2.16	0.85	3.09	31.9	131.	3.00	19	6	0.9	6
N, Z	54	1175	258	19	2.84	1.15	3.25	0.73	0.85	1.52	1.84	9.91	27.	1.95	88	10	2.2	16
O, AL	28	516	93	14	2.00	1.32	2.63	0.30	1.28	1.64	3.27	15.1	31.1	1.67	40	9	1.4	11
O, SB	33	505	92	12	2.75	1.28	3.51	0.86	0.63	0.94	3.07	9.43	13.8	1.92	63	8	1.8	14
P, N	49	5544	550	30	1.63	3.77	6.16	0.83	1.15	1.82	3.74	60.2	154.	9.41	371	171	1.1	11
P, NB	26	225	45	8	3.25	1.08	3.52	0.72	0.62	1.08	1.88	6.21	11.5	0.98	25	4	1.5	12
P, AT	24	2094	659	13	1.85	6.71	12.40	1.22	1.47	1.15	4.37	27.5	94.9	2.49	49	7	2.2	15
P, MG	14	206	57	9	1.56	1.63	2.54	0.26	0.64	0.86	1.49	7.73	15.6	2.39	28	5	0.8	9
P, A	48	1000	106	18	2.67	1.16	3.09	0.57	0.75	1.34	3.56	10.5	22.2	1.56	51	7	1.7	13
P, F	21	998	317	13	1.62	3.66	5.91	0.78	0.67	1.09	2.67	24.4	59.8	4.48	93	4	1.3	13
P, S	62	1576	231	23	2.70	1.11	2.98	0.67	0.59	1.59	3.35	19.4	34.1	3.08	274	11	1.1	9
S, T	121	3788	240	33	3.67	0.95	3.48	0.74	0.94	0.70	2.02	14.1	30.6	6.04	894	109	1.3	14
S, TR	60	933	133	16	3.75	0.97	3.64	0.55	0.95	1.92	2.24	9.82	25.4	2.60	116	18	1.8	14
S, D	19	1906	686	16	1.19	6.27	7.45	0.53	0.90	1.57	3.16	33.7	151.	2.92	34	9	0.0	7
S, MD	17	548	194	12	1.42	2.69	3.81	1.04	0.19	0.98	1.84	12.4	28.8	0.94	18	3	1.0	10
S, L	22	476	72	12	1.83	1.80	3.31	0.61	1.04	1.12	2.50	16.5	24.8	2.56	76	7	0.4	6
S, OG	22	444	83	13	1.69	1.55	2.63	0.38	1.00	1.25	2.04	8.05	19.8	1.45	26	8	2.2	12
S, GT	19	284	43	9	2.11	1.66	3.51	0.52	0.75	1.15	2.23	6.65	13.4	2.28	37	6	1.8	10
S, M	47	1265	126	21	2.24	1.28	2.87	0.41	0.92	1.16	2.10	17.2	37.	5.81	158	7	1.0	12
S, AM	51	1431	288	21	2.43	1.34	3.24	0.61	1.07	1.48	3.34	12.8	29.4	6.44	315	6	1.4	14
T, N	14	2073	1256	8	1.75	18.50	32.40	2.12	0.80	1.27	1.55	92.5	379.	25.00	375	124	1.1	9
T, AP	29	85	26	4	7.25	0.73	5.31	0.87	0.16	0.93	1.67	3.	7.71	4.46	140	35	0.9	7
T, H	22	347	88	11	2.00	1.43	2.87	0.63	0.82	1.48	3.77	9.	24.3	1.69	36	6	0.8	9
V, O	22	653	123	12	1.83	2.47	4.53	0.73	1.02	1.18	3.48	11.7	26.6	1.04	21	3	1.8	13
V, MG	41	804	129	17	2.41	1.15	2.78	0.78	0.89	1.26	3.68	12.7	28.9	0.82	35	5	2.2	14
W, RH	57	2377	364	25	2.28	1.67	3.80	0.68	1.12	1.35	2.81	18.8	59.	2.23	128	20	1.4	13
W, M	18	469	90	10	1.80	2.61	4.69	0.82	0.90	1.43	3.25	10.1	41.3	1.25	19	6	0.0	8
Y, A	21	1176	536	9	2.33	6.22	14.50	1.05	1.53	0.69	2.37	22.2	91.2	1.30	27	8	1.1	7
Z, MW	20	3151	592	16	1.25	9.85	12.30	0.63	0.95	1.32	2.42	64.3	209.	1.59	24	6	1.2	8
Ave.	33	1334	326	14	2.26	3.35	6.15	0.79	0.89	1.29	2.88	15.8	48.7	3.43	110	22	1.3	12
Std. Dev.	19	2022	596	7	0.86	4.57	6.21	0.38	0.36	0.31	0.83	13.2	49.2	5.94	188	65	0.6	3

TABLE S6: Career citation statistics for 100 physics assistant professors (dataset [C]): 51-100.

Name	N	C	$c(1)$	h_1	N/h_1	$\langle c \rangle/h_1$	a	β	γ	α	ζ	$\lambda(2)$	$\lambda(5)$	Ξ	K_T^u	S_i	$\langle L_i \rangle$	l_i
G, H	152	26957	2932	73	2.08	2.43	5.06	0.55	0.99	0.83	2.21	10.8	44.4	0.87	106	7	3.7	36
B, D*	639	113401	2191	174	3.67	1.02	3.75	0.52	0.79	1.54	2.33	22.7	63.2	1.28	482	32	3.8	51
M, T	220	62308	6373	124	1.77	2.28	4.05	0.56	0.96	1.33	2.58	34.4	128.	1.42	232	13	3.4	39
S, PA*	329	56701	2759	127	2.59	1.36	3.52	0.53	0.83	1.17	2.13	25.6	76.8	1.00	270	18	2.9	39
T, R	244	53634	2783	115	2.12	1.91	4.06	0.54	0.93	1.52	3.26	39.	122.	1.15	243	14	2.7	38
L, P	330	63000	8121	120	2.75	1.59	4.38	0.7	0.77	1.38	2.27	26.8	87.6	1.15	245	13	2.9	47
A, R	150	33964	2076	89	1.69	2.54	4.29	0.54	1.04	1.57	2.93	28.	97.6	1.74	194	11	3.7	45
W, H	143	34987	1840	86	1.66	2.84	4.73	0.49	1.09	1.08	2.21	29.6	103.	1.48	201	10	2.9	26
K, M	439	115635	2978	176	2.49	1.5	3.73	0.53	0.89	1.71	3.47	40.7	151.	2.06	923	38	2.4	33
R, GM	263	53173	6876	116	2.27	1.74	3.95	0.7	0.81	1.98	3.88	17.3	55.	1.69	269	15	2.6	42
K, M	70	30570	4288	52	1.35	8.4	11.3	1.	0.82	1.25	3.18	36.8	157.	0.17	6	1	0.8	38
R, RG	457	61796	10114	132	3.46	1.02	3.55	0.65	0.55	1.71	2.17	23.1	73.1	1.02	347	14	3.3	43
R, JG	52	9089	2932	33	1.58	5.3	8.35	0.76	1.09	1.16	2.39	12.4	44.1	2.30	88	4	3.6	38
E, RM	380	101497	6297	150	2.53	1.78	4.51	0.62	0.86	1.62	3.17	32.3	117.	2.19	753	45	2.9	35
O, PH	100	32461	18151	53	1.89	6.12	11.6	1.09	0.48	1.54	2.35	23.5	84.4	1.99	128	7	2.4	36
H, T	472	84433	4014	143	3.3	1.25	4.13	0.67	0.75	1.89	3.12	24.6	83.4	1.18	410	22	3.0	44
G, JL *	458	103003	3647	175	2.62	1.29	3.36	0.55	0.82	1.07	2.38	21.8	73.7	1.08	401	22	3.7	40
P, S	213	23946	1174	91	2.34	1.24	2.89	0.41	0.88	1.61	2.98	16.3	52.1	0.85	99	7	2.4	53
B, MS*	451	98395	3647	172	2.62	1.27	3.33	0.55	0.82	1.26	2.70	21.1	72.7	0.95	356	22	3.8	40
B, AJ	136	17065	2734	64	2.13	1.96	4.17	0.61	0.87	1.44	2.50	21.3	63.3	1.41	156	9	2.8	40
H, RO	306	55291	8064	114	2.68	1.58	4.25	0.77	0.73	1.63	3.12	21.4	82.3	1.19	297	10	2.9	43
P, HRB	133	23711	3851	75	1.77	2.38	4.22	0.71	0.9	1.45	2.48	21.5	79.	0.91	112	4	1.4	35
T, R	88	17597	1103	56	1.57	3.57	5.61	0.48	1.21	1.18	2.93	32.6	112.	1.53	124	6	1.7	33
W, RA	355	85942	9511	142	2.5	1.7	4.26	0.69	0.82	1.49	3.16	25.9	86.3	1.25	190	6	2.9	52
L, AJ	474	75508	6015	117	4.05	1.36	5.52	0.89	0.62	1.40	2.37	18.2	60.8	1.24	318	14	1.8	45
J, R	461	65274	2003	137	3.36	1.03	3.48	0.54	0.77	1.53	2.41	14.6	33.	1.26	309	11	2.8	46
W, M	164	35155	2487	90	1.82	2.38	4.34	0.6	0.71	1.47	2.91	28.9	94.8	2.36	294	18	2.5	38
F, E	245	35267	962	112	2.19	1.29	2.81	0.37	0.92	1.72	2.77	21.	70.7	1.46	367	19	2.4	34
K, MW	294	60716	5709	124	2.37	1.67	3.95	0.62	0.85	1.35	2.58	25.4	94.2	1.45	328	15	2.8	38
B, DD	189	17466	728	76	2.49	1.22	3.02	0.44	0.9	1.30	2.59	17.	55.7	0.87	111	6	3.1	54
F, RA	788	81443	2449	153	5.15	0.68	3.48	0.57	0.64	1.39	2.79	20.3	64.4	2.10	938	24	2.7	39
K, N	160	19644	1286	73	2.19	1.68	3.69	0.53	0.91	1.48	2.20	14.2	48.3	1.11	117	8	3.1	37
N, JR	264	30326	1409	96	2.75	1.2	3.29	0.51	0.83	1.68	2.98	25.2	76.7	1.22	241	11	2.2	38
C, P	833	113544	4364	171	4.87	0.8	3.88	0.59	0.67	1.83	3.13	24.3	80.	1.69	1028	65	3.5	41
V, HE*	406	47029	1604	120	3.38	0.97	3.27	0.53	0.77	1.63	2.90	20.2	60.8	1.42	393	24	3.2	44
B, G	332	46231	2542	119	2.79	1.17	3.26	0.5	0.81	1.30	2.19	19.9	63.2	0.94	276	15	2.0	39
E, A	103	23401	1736	60	1.72	3.79	6.5	0.65	1.09	1.02	2.29	25.3	108.	2.74	227	13	2.5	37
L, HF	538	58654	1355	130	4.14	0.84	3.47	0.53	0.71	1.93	2.68	17.3	48.3	0.96	241	12	2.9	51
H, HR*	230	39240	3211	100	2.3	1.71	3.92	0.7	0.82	1.63	2.92	17.2	57.2	1.06	227	10	4.3	40
G, MR	259	37674	6370	98	2.64	1.48	3.92	0.65	0.78	1.62	2.99	23.4	83.4	1.76	416	24	2.6	34
L, UK	80	21702	5709	53	1.51	5.12	7.73	0.93	0.94	1.37	3.29	18.6	79.3	0.94	61	4	2.6	42
N, K	231	31982	716	105	2.2	1.32	2.9	0.28	0.98	1.59	3.14	26.9	83.6	1.64	371	10	2.1	36
S, S	134	12208	1391	58	2.31	1.57	3.63	0.69	0.81	1.22	2.50	11.8	44.5	1.76	133	7	2.1	39
S, T	241	22447	703	85	2.84	1.1	3.11	0.47	0.81	1.55	3.04	16.4	47.5	1.05	172	10	2.9	43
G, HM	349	31945	3667	92	3.79	0.99	3.77	0.66	0.65	1.76	3.36	13.3	43.9	1.17	245	12	2.9	50
D, JE	330	50711	1307	122	2.7	1.26	3.41	0.42	0.87	1.54	3.79	22.8	70.6	0.98	140	9	2.7	57
T, S*	293	47775	3035	117	2.5	1.39	3.49	0.53	0.87	1.82	4.41	32.2	93.3	1.62	344	14	3.2	47
P, M	200	27105	1632	84	2.38	1.61	3.84	0.5	0.91	1.41	2.78	20.1	55.2	1.10	106	6	3.7	54
P, I	1030	83688	3050	138	7.46	0.59	4.39	0.65	0.54	2.00	3.72	14.5	46.2	0.87	297	17	3.9	56
K, SJ	310	77841	3778	133	2.33	1.89	4.4	0.59	0.9	1.86	3.62	27.4	99.5	2.42	747	33	2.2	38
Ave.	271	43581	3344	98	2.60	1.90	4.30	0.61	0.83	1.51	2.87	21.6	72.2	1.48	298	15	2.8	41
Std. Dev.	171	30775	3246	35	0.94	1.22	1.54	0.16	0.13	0.26	0.53	6.97	27.3	0.61	226	12	0.7	7

TABLE S7: Career citation statistics for 100 highly-cited cell biologists (dataset [D]): 1-50. An asterisk * denotes Nobel Prize winner in "Physiology or Medicine."

Name	N	C	$c(1)$	h_1	N/h_1	$\langle c\rangle/h_1$	a	β	γ	α	ζ	$\lambda(2)$	$\lambda(5)$	Ξ	K_T^u	S_i	$\langle L_i\rangle$	l_i
B, JM*	324	43757	2233	108	3.	1.25	3.75	0.63	0.76	1.03	1.99	21.1	68.2	3.16	679	24	2.8	40
B, D	392	92722	8034	133	2.95	1.78	5.24	0.85	0.73	1.36	2.51	13.3	45.5	2.11	508	17	3.0	44
S, U	129	15080	1278	58	2.22	2.02	4.48	0.6	0.95	1.26	2.69	20.6	62.4	1.32	124	6	2.7	39
H, DS	77	16629	3504	54	1.43	4.	5.7	0.66	0.71	1.04	2.36	14.6	41.	1.34	49	3	1.8	53
L, E	129	14837	1931	58	2.22	1.98	4.41	0.73	0.82	1.55	2.84	15.7	51.5	1.62	113	8	1.7	37
B, D	163	43763	2780	94	1.73	2.86	4.95	0.59	1.03	1.54	3.15	25.7	90.3	2.27	350	12	2.0	31
S, TA	475	90729	6158	143	3.32	1.34	4.44	0.7	0.74	1.87	3.04	20.4	76.2	1.95	675	33	2.3	40
N, J	70	10180	1138	48	1.46	3.03	4.42	0.57	0.76	1.17	2.44	21.2	64.7	1.05	67	5	2.2	28
K, R	62	13205	3878	39	1.59	5.46	8.68	1.09	0.53	1.61	2.30	18.7	61.4	2.79	117	8	1.8	40
N, P*	296	33964	2316	90	3.29	1.27	4.19	0.71	0.73	1.80	2.87	13.6	44.8	1.23	336	13	2.4	39
V, A	177	21878	1084	76	2.33	1.63	3.79	0.48	0.92	1.23	2.60	17.8	57.1	1.04	140	8	3.2	41
G, B	295	27821	4457	87	3.39	1.08	3.68	0.7	0.66	1.36	3.13	11.4	37.9	1.41	303	18	3.4	39
G, CS	208	32194	1932	106	1.96	1.46	2.87	0.44	0.78	1.46	2.96	18.5	64.1	1.35	269	14	2.9	32
S, JA	236	27050	1073	90	2.62	1.27	3.34	0.49	0.85	1.59	2.72	19.4	58.9	1.16	183	7	3.3	47
J, AJ	229	21188	2718	67	3.42	1.38	4.72	0.8	0.68	1.76	3.42	14.1	49.3	1.98	407	20	2.5	39
J, TM	203	35849	912	105	1.93	1.68	3.25	0.32	1.04	1.36	2.23	24.9	91.8	1.77	299	16	2.8	36
G, DV	189	61645	3038	104	1.82	3.14	5.7	0.46	0.98	1.16	2.71	37.4	139.	2.62	428	22	3.1	30
S, R	247	24786	1198	91	2.71	1.1	2.99	0.53	0.8	1.42	2.36	19.2	60.5	0.99	152	10	3.0	44
B, EH*	232	21366	1961	68	3.41	1.35	4.62	0.79	0.69	1.40	2.78	12.	32.	1.19	184	7	2.8	41
V, B	476	193600	21368	185	2.57	2.2	5.66	0.76	0.84	1.78	3.88	35.8	151.	2.06	929	64	2.8	37
S, BM	263	60660	2589	123	2.14	1.88	4.01	0.53	0.95	1.85	4.07	25.5	88.1	2.12	463	28	2.6	38
H, L	753	81772	8798	141	5.34	0.77	4.11	0.72	0.58	2.23	4.37	22.7	69.1	1.88	823	23	3.2	52
G, L	241	32597	1169	97	2.48	1.39	3.46	0.48	0.9	1.60	2.76	23.5	67.1	1.50	314	13	2.3	36
C, MR*	170	18476	1411	68	2.5	1.6	4.	0.7	0.79	1.36	2.35	23.8	82.2	1.37	154	6	2.5	40
M, J	303	76645	2793	144	2.1	1.76	3.7	0.5	0.94	1.76	4.00	34.7	117.	1.82	543	20	2.0	36
M, DA	174	37517	6371	98	1.78	2.2	3.91	0.6	0.94	1.45	2.88	30.5	108.	1.46	237	8	3.0	35
H, I	173	20881	1151	84	2.06	1.44	2.96	0.46	0.92	1.67	3.07	20.4	61.4	1.22	165	7	3.6	38
F, GR	239	33493	1773	104	2.3	1.35	3.1	0.55	0.84	1.42	2.94	16.5	56.9	1.32	239	12	2.9	40
J, PA	266	31328	2328	88	3.02	1.34	4.05	0.66	0.75	1.64	3.03	14.7	45.6	1.40	277	11	3.7	40
R, M	266	23735	513	90	2.96	0.99	2.93	0.38	0.82	1.42	2.23	16.7	43.3	1.12	191	14	3.2	42
M, NR	120	11539	3208	52	2.31	1.85	4.27	0.59	0.81	1.30	1.95	9.06	38.2	0.93	54	3	2.5	49
R, JE	220	38918	2087	106	2.08	1.67	3.46	0.56	0.9	1.58	2.63	29.3	93.3	0.99	198	12	4.1	41
C, J	119	9381	1144	54	2.2	1.46	3.22	0.58	0.8	1.24	2.62	9.23	26.6	0.91	62	4	2.6	59
W, A	57	4664	500	36	1.58	2.27	3.6	0.63	0.82	1.25	2.87	16.1	43.9	0.87	44	3	1.5	29
E, SJ	251	53912	4483	111	2.26	1.94	4.38	0.6	0.91	1.73	3.32	35.6	116.	2.52	695	38	2.5	31
M, RC	198	37011	2474	83	2.39	2.25	5.37	0.7	0.88	1.77	2.79	23.1	90.4	3.49	617	24	2.6	39
F, G	206	26700	941	92	2.24	1.41	3.15	0.44	0.91	1.10	2.52	23.	60.5	0.79	57	4	5.5	59
S, G	89	13348	634	58	1.53	2.59	3.97	0.32	1.18	1.43	3.16	24.7	73.6	0.64	55	5	4.2	35
P, RP	149	14964	641	75	1.99	1.34	2.66	0.4	0.92	1.25	2.75	18.4	53.4	0.77	93	5	4.3	51
S, K	238	28409	1476	92	2.59	1.3	3.36	0.58	0.8	1.52	2.46	22.9	65.5	1.40	386	9	2.0	36
G, CW*	93	22685	2787	59	1.58	4.13	6.52	0.81	0.79	1.62	3.18	21.1	69.8	1.88	133	9	2.6	30
C, CR	377	25099	2396	73	5.16	0.91	4.71	0.82	0.52	1.63	2.77	9.25	29.9	1.14	263	12	2.6	49
L, RA	141	30076	9280	61	2.31	3.5	8.08	1.07	0.73	1.16	3.03	18.5	79.3	1.21	117	7	3.2	43
V, RD	195	19362	1259	78	2.5	1.27	3.18	0.52	0.84	1.78	3.66	19.5	59.4	1.54	258	13	3.5	34
C, TR*	321	31058	1546	93	3.45	1.04	3.59	0.56	0.74	1.74	3.23	15.2	44.8	0.93	256	12	2.5	40
P, RD	433	51491	1099	128	3.38	0.93	3.14	0.46	0.79	1.90	3.76	18.4	65.5	1.03	254	14	2.5	47
S, B	112	7594	737	48	2.33	1.41	3.3	0.64	0.77	1.42	1.63	12.6	37.7	2.08	142	7	2.6	35
S, CJ	271	52617	3618	95	2.85	2.04	5.83	0.8	0.78	1.57	2.77	23.7	73.4	1.15	215	11	2.9	43
T, P	303	44852	2087	112	2.71	1.32	3.58	0.55	0.82	1.90	3.62	26.6	86.2	3.74	942	48	2.0	34
S, JW*	199	22535	2426	73	2.73	1.55	4.23	0.74	0.76	1.77	3.07	14.6	52.9	1.15	158	10	2.9	36
Ave.	271	43581	3344	98	2.60	1.90	4.30	0.61	0.83	1.51	2.87	21.6	72.2	1.48	298	15	2.8	41
Std. Dev.	171	30775	3246	35	0.94	1.22	1.54	0.16	0.13	0.26	0.53	6.97	27.3	0.61	226	12	0.7	7

TABLE S8: Career citation statistics for 100 100 highly-cited cell biologists (dataset [D]): 51-100. An asterisk * denotes Nobel Prize winner in "Physiology or Medicine."

Name	N	C	$c(1)$	h_1	N/h_1	$\langle c\rangle/h_1$	a	β	γ	α	ζ	$\lambda(2)$	$\lambda(5)$	Ξ	K_T^u	S_i	$\langle L_i\rangle$	l_i
B, S	125	1850	166	25	5.	0.59	2.96	0.99	0.57	1.60	3.35	1.48	2.48	0.14	12	1	4.6	58
C, SS^{WP}	61	1848	369	22	2.77	1.38	3.82	0.83	0.98	1.22	2.66	2.24	4.77	0.61	8	1	1.4	67
I, K	20	980	303	14	1.43	3.5	5.	0.89	0.5	0.95	1.19	2.5	5.85	0.13	2	1	1.0	41
F, EE	24	276	52	10	2.4	1.15	2.76	0.73	0.48	1.10	2.46	1.59	2.84	0.29	6	2	4.5	28
A, AA	88	1097	197	18	4.89	0.69	3.39	0.95	0.59	0.80	2.45	2.06	3.75	0.03	3	1	0.0	45
J, N	58	1221	110	21	2.76	1.	2.77	0.55	0.89	0.90	2.35	2.08	4.57	0.12	6	1	0.7	62
J, JA	68	420	74	11	6.18	0.56	3.47	0.76	0.36	1.02	1.37	1.61	3.19	0.17	7	1	2.8	55
G, H	42	484	58	14	3.	0.82	2.47	0.58	0.64	0.77	1.62	2.04	4.42	0.25	11	2	2.3	48
S, B	311	15540	880	62	5.02	0.81	4.04	0.69	0.75	1.25	2.50	5.21	14.4	0.38	92	8	4.5	43
M, J^{FM,WP,A}	50	5739	746	32	1.56	3.59	5.6	0.46	1.32	1.24	2.79	4.04	12.8	0.17	5	1	1.6	59
H, WY	64	685	59	16	4.	0.67	2.68	0.58	0.64	0.94	1.89	2.27	4.6	0.21	12	2	2.2	48
S, G	82	2787	367	27	3.04	1.26	3.82	0.57	0.95	1.40	2.17	2.88	8.42	0.07	3	1	0.0	56
L, S	43	176	32	7	6.14	0.58	3.59	1.08	0.25	0.97	3.34	1.15	1.67	0.07	3	1	0.0	58
S, JP^{FM,WP,A}	79	3965	466	23	3.43	2.18	7.5	1.17	0.64	0.71	1.72	2.95	5.75	0.21	9	2	6.3	62
S, IE	132	2743	368	24	5.5	0.87	4.76	0.8	0.58	1.31	2.08	2.48	4.74	0.10	4	1	3.5	63
L, N	75	1268	139	19	3.95	0.89	3.51	0.91	0.72	1.13	2.39	1.72	2.82	0.23	11	1	0.3	43
B, ET	85	230	111	7	12.1	0.39	4.69	1.46	−0.12	1.48	2.40	1.2	1.53	0.04	2	1	1.0	32
B, R	76	1818	202	23	3.3	1.04	3.44	0.71	0.7	1.25	1.77	1.98	4.34	0.29	9	1	2.3	53
M, WS	30	422	41	12	2.5	1.17	2.93	0.33	1.07	0.91	1.50	2.47	4.44	0.20	3	1	2.6	44
A, MF^{FM,A}	72	9040	782	36	2.	3.49	6.98	0.85	1.39	1.35	6.27	7.69	12.7	0.46	16	2	4.8	61
S, JL	54	893	114	16	3.38	1.03	3.49	0.73	0.68	0.90	1.65	2.73	5.53	0.18	7	2	0.5	43
E, S	54	2474	285	28	1.93	1.64	3.16	0.43	1.16	1.15	3.21	2.36	5.86	0.39	12	2	3.7	52
H, M	48	389	47	11	4.36	0.74	3.21	0.82	0.59	1.12	2.31	1.43	2.21	0.06	3	1	1.4	50
B, A	76	3571	456	26	2.92	1.81	5.28	1.11	0.71	0.98	2.11	2.85	6.11	0.31	11	2	5.8	60
S, S^{FM,WP}	73	5739	1595	34	2.15	2.31	4.96	0.68	1.21	0.89	2.81	4.27	12.2	0.21	6	1	7.9	55
L, HB	76	2166	502	20	3.8	1.43	5.42	1.03	0.78	1.02	2.49	3.33	7.67	0.57	34	3	5.5	44
C, TH	45	817	123	16	2.81	1.13	3.19	0.59	0.82	0.87	1.91	3.6	9.91	0.20	9	3	3.0	18
W, JL	166	910	260	12	13.8	0.46	6.32	0.89	0.25	1.47	2.38	1.43	1.66	0.14	5	1	8.8	60
O, O	47	897	199	16	2.94	1.19	3.5	1.01	0.61	0.81	2.04	1.56	2.88	0.18	7	1	0.4	44
W, JHC	37	1496	221	18	2.06	2.25	4.62	0.83	0.97	0.93	1.95	1.7	3.36	0.25	8	1	0.0	29
H, MW	85	2361	304	21	4.05	1.32	5.35	1.17	0.59	1.11	2.10	2.54	6.97	0.63	24	2	8.1	52
Z, O	53	1498	137	24	2.21	1.18	2.6	0.57	1.09	1.28	3.12	1.79	3.84	0.14	4	1	4.9	59
W, H	46	3319	485	22	2.09	3.28	6.86	1.1	1.11	0.68	1.45	1.54	2.33	0.11	3	1	0.0	49
H, WC	47	808	99	17	2.76	1.01	2.8	0.47	0.85	0.95	1.91	2.58	6.16	0.52	21	2	4.0	34
W, H	89	5354	525	30	2.97	2.01	5.95	1.04	0.92	1.21	3.21	1.58	3.07	0.13	7	1	1.5	43
K, CE	171	4959	355	36	4.75	0.81	3.83	0.87	0.8	1.60	3.79	3.1	9.09	0.46	41	5	5.7	38
D, H	41	431	78	10	4.1	1.05	4.31	0.82	0.53	1.23	3.50	2.38	6.44	0.45	19	2	0.0	23
M, M	88	981	246	14	6.29	0.8	5.01	1.23	0.27	1.33	1.90	1.65	2.48	0.20	13	2	2.4	54
W, A	18	1581	497	13	1.38	6.76	9.36	0.73	1.52	0.92	2.27	5.4	18.2	0.39	6	2	1.9	32
M, EE	21	459	162	9	2.33	2.43	5.67	0.99	0.81	0.65	1.62	2.73	4.57	0.13	2	1	1.0	33
M, GD	55	1443	114	21	2.62	1.25	3.27	0.49	1.05	1.16	2.50	1.97	4.	0.18	6	2	3.7	57
F, W	43	2379	315	23	1.87	2.41	4.5	0.71	0.97	1.05	4.24	2.23	4.72	0.18	7	1	0.0	38
A, M	102	1697	245	19	5.37	0.88	4.7	0.88	0.65	1.01	2.22	3.41	8.53	0.22	18	2	6.1	42
K, J	88	1306	135	21	4.19	0.71	2.96	0.85	0.7	1.10	2.99	3.	6.13	0.41	36	1	3.6	35
M, B	71	2079	242	23	3.09	1.27	3.93	0.85	0.79	0.71	1.65	3.81	8.83	0.32	10	2	4.2	52
V, HS	96	251	20	9	10.7	0.29	3.1	0.71	0.29	1.24	2.14	1.53	1.96	0.11	3	1	1.5	60
H, G	48	1287	205	17	2.82	1.58	4.45	0.85	0.75	1.28	2.44	1.66	3.	0.21	6	1	8.0	37
C, LA	180	5354	398	39	4.62	0.76	3.52	0.85	0.81	1.33	2.86	2.87	8.22	0.49	60	4	4.1	39
O, A	49	1043	101	20	2.45	1.06	2.61	0.32	1.	1.56	3.44	4.7	14.5	0.36	18	2	3.1	18
L, E	33	323	62	8	4.13	1.22	5.05	0.84	0.52	1.58	4.35	3.95	9.8	0.65	16	3	1.1	18
Ave.	74	2217	281	20	3.92	1.45	4.26	0.81	0.75	1.11	2.50	2.63	6.	0.26	13	2	3.0	46
Std. Dev.	50	2653	275	10	2.48	1.12	1.45	0.24	0.31	0.25	0.90	1.25	3.8	0.16	16	1	2.4	13

TABLE S9: Career citation statistics for 50 highly-cited mathematicians (dataset [E]): 1-50. Award labels: WP = Wolf Prize, FM = Fields Medal, A = Abel Prize.

Career dataset	$\pi \pm$ std. err.	$\overline{\tau} \pm$ std. err. ($1/\overline{\tau}$)	$\rho \pm$ std. err.	N_{data}	Adj. R^2	$c_\times$
[A]	$0.41 \pm 0.004^{***}$	$5.32 \pm 0.031^{***}$	$0.22 \pm 0.001^{***}$	74574	0.85	40
		(0.19 ± 0.001)				
	0.45 ± 0.004	(0.92 ± 0.005)	0.32 ± 0.002			
[B]	$0.42 \pm 0.004^{***}$	$5.62 \pm 0.036^{***}$	$0.22 \pm 0.001^{***}$	59942	0.83	40
		(0.18 ± 0.001)				
	0.48 ± 0.005	(0.92 ± 0.006)	0.33 ± 0.002			
[C]	$0.69 \pm 0.024^{***}$	$2.44 \pm 0.100^{***}$	$0.33 \pm 0.006^{***}$	3952	0.82	10
		(0.41 ± 0.017)				
	0.52 ± 0.018	(0.67 ± 0.027)	0.53 ± 0.010			
[D]	$0.33 \pm 0.003^{***}$	$5.92 \pm 0.034^{***}$	$0.27 \pm 0.001^{***}$	109386	0.90	100
		(0.17 ± 0.001)				
	0.34 ± 0.003	(0.69 ± 0.004)	0.33 ± 0.001			
[E]	$0.38 \pm 0.010^{***}$	$12.20 \pm 0.278^{***}$	$0.13 \pm 0.003^{***}$	7491	0.71	20
		(0.08 ± 0.002)				
	0.55 ± 0.015	(0.68 ± 0.016)	0.34 ± 0.008			

TABLE S10: multivariate regression parameters for each dataset using papers with $c(t-1) < c_\times$ and for $t \leq 30$. All values are significant with respect to the std. err. at the $p < 0.001$ significance level (applies to all rows). For each dataset, the first row row lists the unstandardized regression coefficients, the second row gives the un-inverted regression parameter $-b_2 = 1/\overline{\tau}$, and the third row lists the standardized regression coefficients (un-inverted b_2 indicated by parenthesis).

Career dataset	$\pi \pm$ std. err.	$\overline{\tau} \pm$ std. err. ($1/\overline{\tau}$)	$\rho \pm$ std. err.	N_{data}	Adj. R^2	$c_\times$
[A]	$1.10 \pm 0.003^{***}$	$8.60 \pm 0.049^{***}$	$-0.14 \pm 0.002^{***}$	45369	0.97	40
		(0.12 ± 0.001)				
	0.70 ± 0.002	(0.54 ± 0.003)	-0.11 ± 0.001			
[B]	$1.02 \pm 0.005^{***}$	$7.22 \pm 0.052^{***}$	$-0.08 \pm 0.003^{***}$	22632	0.96	40
		(0.14 ± 0.001)				
	0.57 ± 0.003	(0.65 ± 0.005)	-0.06 ± 0.002			
[C]	$1.02 \pm 0.008^{***}$	$3.24 \pm 0.041^{***}$	$0.04 \pm 0.004^{***}$	6706	0.97	10
		(0.31 ± 0.004)				
	0.78 ± 0.006	(0.64 ± 0.008)	0.04 ± 0.004			
[D]	$1.04 \pm 0.003^{***}$	$7.49 \pm 0.041^{***}$	$-0.10 \pm 0.002^{***}$	54029	0.97	100
		(0.13 ± 0.001)				
	0.54 ± 0.002	(0.55 ± 0.003)	-0.07 ± 0.001			
[E]	$0.92 \pm 0.014^{***}$	$12.10 \pm 0.300^{***}$	$-0.11 \pm 0.008^{***}$	3022	0.93	20
		(0.08 ± 0.002)				
	0.63 ± 0.010	(0.52 ± 0.013)	-0.16 ± 0.011			

TABLE S11: multivariate regression parameters for each dataset using papers with $c(t-1) \geq c_\times$ and for $t \leq 30$. All values are significant with respect to the std. err. at the $p < 0.001$ significance level (applies to all rows). For each dataset, the first row row lists the unstandardized regression coefficients, the second row gives the un-inverted regression parameter $-b_2 = 1/\overline{\tau}$, and the third row lists the standardized regression coefficients (un-inverted b_2 indicated by parenthesis).

Career dataset	$\pi \pm$ std. err.	$\overline{\tau} \pm$ std. err. $(1/\overline{\tau})$	$\rho \pm$ std. err.	N_{data}	Adj. R^2	$c_{\times}$
[A]	$0.22 \pm 0.010^{***}$	$8.67 \pm 0.376^{***}$	$0.36 \pm 0.003^{***}$	7065	0.94	40
		(0.12 ± 0.005)				
	0.27 ± 0.012	(0.32 ± 0.014)	0.62 ± 0.006			
[B]	$0.19 \pm 0.016^{***}$	$12.80 \pm 1.237^{***}$	$0.39 \pm 0.006^{***}$	3419	0.93	40
		(0.08 ± 0.008)				
	0.24 ± 0.019	(0.20 ± 0.019)	0.62 ± 0.009			
[C]	$0.45 \pm 0.063^{***}$	$0.98 \pm 0.103^{***}$	$0.26 \pm 0.020^{***}$	465	0.92	10
		(1.02 ± 0.106)				
	0.45 ± 0.063	(0.52 ± 0.054)	0.67 ± 0.050			
[D]	$0.14 \pm 0.004^{***}$	$10.30 \pm 0.184^{***}$	$0.36 \pm 0.002^{***}$	32560	0.94	100
		(0.10 ± 0.002)				
	0.19 ± 0.006	(0.39 ± 0.007)	0.56 ± 0.002			
[E]	$0.40 \pm 0.036^{***}$	$8.30 \pm 0.943^{***}$	$0.23 \pm 0.011^{***}$	625	0.89	20
		(0.12 ± 0.014)				
	0.46 ± 0.042	(0.40 ± 0.046)	0.44 ± 0.021			

TABLE S12: multivariate regression parameters for each dataset using papers with $c(t-1) < c_{\times}$ and for $t \leq 30$ conditional on the paper eventually having $c \geq 100$ citations for datasets [A,B,D] or $c \geq 50$ for datasets citations [C,E]. All values are significant with respect to the std. err. at the $p < 0.001$ significance level (applies to all rows). For each dataset, the first row row lists the unstandardized regression coefficients, the second row gives the un-inverted regression parameter $-b_2 = 1/\overline{\tau}$, and the third row lists the standardized regression coefficients (un-inverted b_2 indicated by parenthesis).

Career dataset	$\pi \pm$ std. err.	$\overline{\tau} \pm$ std. err. $(1/\overline{\tau})$	$\rho \pm$ std. err.	N_{data}	Adj. R^2	$c_{\times}$
[A]	$1.07 \pm 0.004^{***}$	$8.65 \pm 0.061^{***}$	$-0.12 \pm 0.002^{***}$	29601	0.97	40
		(0.12 ± 0.001)				
	0.72 ± 0.003	(0.60 ± 0.004)	-0.10 ± 0.002			
[B]	$0.95 \pm 0.007^{***}$	$7.33 \pm 0.073^{***}$	$-0.03 \pm 0.005^{***}$	12333	0.96	40
		(0.14 ± 0.001)				
	0.58 ± 0.005	(0.70 ± 0.007)	-0.02 ± 0.004			
[C]	$0.98 \pm 0.012^{***}$	$3.31 \pm 0.061^{***}$	$0.06 \pm 0.007^{***}$	3571	0.97	10
		(0.30 ± 0.006)				
	0.82 ± 0.010	(0.74 ± 0.014)	0.07 ± 0.008			
[D]	$1.04 \pm 0.003^{***}$	$7.49 \pm 0.041^{***}$	$-0.10 \pm 0.002^{***}$	54029	0.97	100
		(0.13 ± 0.001)				
	0.54 ± 0.002	(0.55 ± 0.003)	-0.07 ± 0.001			
[E]	$0.89 \pm 0.018^{***}$	$11.90 \pm 0.376^{***}$	$-0.08 \pm 0.010^{***}$	1833	0.94	20
		(0.08 ± 0.003)				
	0.65 ± 0.013	(0.56 ± 0.018)	-0.13 ± 0.015			

TABLE S13: multivariate regression parameters for each dataset using papers with $c(t-1) \geq c_{\times}$ and for $t \leq 30$ conditional on the paper eventually having $c \geq 100$ citations for datasets [A,B,D] or $c \geq 50$ for datasets citations [C,E]. All values are significant with respect to the std. err. at the $p < 0.001$ significance level (applies to all rows). For each dataset, the first row row lists the unstandardized regression coefficients, the second row gives the un-inverted regression parameter $-b_2 = 1/\overline{\tau}$, and the third row lists the standardized regression coefficients (un-inverted b_2 indicated by parenthesis).

Name	$c(t-1) < c_{\times}$					$c(t-1) \geq c_{\times}$				
	π_i	$\overline{\tau}_i$	ρ_i	N_i	Adj. R_i^2	π_i	$\overline{\tau}_i$	ρ_i	N_i	Adj. R_i^2
A, BJ	$0.52 \pm 0.030^{***}$	$8.35 \pm 0.458^{***}$	$0.12 \pm 0.010^{***}$	617	0.84	$0.78 \pm 0.086^{***}$	$9.84 \pm 0.717^{***}$	-0.00 ± 0.047	185	0.96
A, PW	$0.37 \pm 0.034^{***}$	$6.19 \pm 0.324^{***}$	$0.22 \pm 0.010^{***}$	696	0.87	$0.97 \pm 0.045^{***}$	$12.20 \pm 0.853^{***}$	$-0.08 \pm 0.024^{***}$	426	0.97
A, A	$0.57 \pm 0.061^{***}$	$4.74 \pm 0.514^{***}$	$0.20 \pm 0.028^{***}$	139	0.88	$1.02 \pm 0.355^{**}$	$4.35 \pm 0.910^{***}$	-0.11 ± 0.239	36	0.95
B, CP	$0.56 \pm 0.048^{***}$	$6.52 \pm 0.382^{***}$	$0.17 \pm 0.020^{***}$	331	0.83	$0.53 \pm 0.086^{***}$	$14.30 \pm 1.481^{***}$	0.10 ± 0.061	183	0.95
B, K	$0.62 \pm 0.041^{***}$	$5.35 \pm 0.245^{***}$	$0.18 \pm 0.014^{***}$	450	0.87	$0.85 \pm 0.059^{***}$	$8.77 \pm 0.681^{***}$	-0.05 ± 0.036	158	0.95
B, M	$0.38 \pm 0.033^{***}$	$6.51 \pm 0.402^{***}$	$0.20 \pm 0.009^{***}$	743	0.87	$0.97 \pm 0.030^{***}$	$9.79 \pm 0.473^{***}$	$-0.08 \pm 0.017^{***}$	522	0.98
C, R	$0.50 \pm 0.031^{***}$	$4.49 \pm 0.228^{***}$	$0.20 \pm 0.009^{***}$	715	0.91	$1.32 \pm 0.019^{***}$	$5.25 \pm 0.207^{***}$	$-0.21 \pm 0.010^{***}$	462	0.99
C, DM	$0.37 \pm 0.032^{***}$	$6.49 \pm 0.443^{***}$	$0.19 \pm 0.009^{***}$	716	0.86	$1.26 \pm 0.016^{***}$	$9.87 \pm 0.428^{***}$	$-0.25 \pm 0.009^{***}$	484	0.99
C, DJ	$0.41 \pm 0.029^{***}$	$4.86 \pm 0.227^{***}$	$0.23 \pm 0.009^{***}$	744	0.88	$1.15 \pm 0.037^{***}$	$9.22 \pm 0.492^{***}$	$-0.19 \pm 0.019^{***}$	545	0.97
C, SW	$0.54 \pm 0.022^{***}$	$3.26 \pm 0.094^{***}$	$0.21 \pm 0.006^{***}$	1841	0.88	$0.96 \pm 0.016^{***}$	$3.92 \pm 0.068^{***}$	0.02 ± 0.009	1244	0.98
C, JI	$0.53 \pm 0.023^{***}$	$3.17 \pm 0.112^{***}$	$0.21 \pm 0.007^{***}$	1179	0.91	$1.21 \pm 0.020^{***}$	$5.06 \pm 0.181^{***}$	$-0.13 \pm 0.010^{***}$	692	0.99
C, PB	$0.11 \pm 0.041^{**}$	$17.10 \pm 3.330^{***}$	$0.30 \pm 0.013^{***}$	495	0.86	$1.21 \pm 0.087^{***}$	$16.00 \pm 3.515^{***}$	$-0.24 \pm 0.045^{***}$	216	0.96
E, M	$0.87 \pm 0.056^{***}$	$3.67 \pm 0.340^{***}$	$0.12 \pm 0.021^{***}$	227	0.86	$1.08 \pm 0.015^{***}$	$7.84 \pm 0.588^{***}$	$-0.06 \pm 0.015^{***}$	119	1.00
F, ME	$0.49 \pm 0.026^{***}$	$5.48 \pm 0.229^{***}$	$0.18 \pm 0.008^{***}$	1155	0.85	$0.86 \pm 0.025^{***}$	$10.80 \pm 0.454^{***}$	$-0.06 \pm 0.015^{***}$	807	0.96
F, MPA	$0.19 \pm 0.042^{***}$	$10.20 \pm 1.747^{***}$	$0.26 \pm 0.013^{***}$	640	0.80	$1.27 \pm 0.025^{***}$	$7.73 \pm 0.314^{***}$	$-0.23 \pm 0.013^{***}$	749	0.98
G, H	$0.58 \pm 0.035^{***}$	$3.78 \pm 0.166^{***}$	$0.20 \pm 0.011^{***}$	832	0.84	$1.03 \pm 0.028^{***}$	$6.85 \pm 0.233^{***}$	$-0.09 \pm 0.017^{***}$	807	0.96
G, C	$0.54 \pm 0.047^{***}$	$4.20 \pm 0.370^{***}$	$0.22 \pm 0.014^{***}$	373	0.90	$1.22 \pm 0.020^{***}$	$6.43 \pm 0.222^{***}$	$-0.18 \pm 0.011^{***}$	495	0.99
G, SL	$0.53 \pm 0.052^{***}$	$4.37 \pm 0.334^{***}$	$0.24 \pm 0.017^{***}$	373	0.87	$0.79 \pm 0.065^{***}$	$23.70 \pm 5.941^{***}$	-0.00 ± 0.042	331	0.95
G, DJ	0.08 ± 0.047	$3.88 \pm 0.293^{***}$	$0.40 \pm 0.014^{***}$	459	0.88	$0.78 \pm 0.036^{***}$	$5.50 \pm 0.202^{***}$	$0.08 \pm 0.021^{***}$	608	0.96
H, FDM	$0.41 \pm 0.041^{***}$	$6.55 \pm 0.425^{***}$	$0.22 \pm 0.014^{***}$	502	0.85	$1.08 \pm 0.033^{***}$	$12.10 \pm 0.953^{***}$	$-0.15 \pm 0.020^{***}$	477	0.98
H, BI	$0.50 \pm 0.035^{***}$	$3.85 \pm 0.184^{***}$	$0.23 \pm 0.011^{***}$	670	0.89	$1.03 \pm 0.024^{***}$	$10.10 \pm 0.411^{***}$	$-0.12 \pm 0.013^{***}$	762	0.98
H, DR	$0.44 \pm 0.038^{***}$	$3.55 \pm 0.184^{***}$	$0.26 \pm 0.012^{***}$	570	0.89	$0.89 \pm 0.057^{***}$	$5.04 \pm 0.251^{***}$	0.03 ± 0.032	336	0.96
H, SE	$0.33 \pm 0.032^{***}$	$7.28 \pm 0.419^{***}$	$0.19 \pm 0.011^{***}$	632	0.81	$0.88 \pm 0.102^{***}$	$11.30 \pm 1.242^{***}$	$-0.16 \pm 0.061^{*}$	191	0.89
J, S	$0.49 \pm 0.044^{***}$	$4.94 \pm 0.364^{***}$	$0.23 \pm 0.017^{***}$	273	0.87	$0.62 \pm 0.293^{*}$	$4.91 \pm 1.064^{***}$	0.20 ± 0.170	28	0.98
L, RB	$0.59 \pm 0.054^{***}$	$4.41 \pm 0.312^{***}$	$0.22 \pm 0.018^{***}$	345	0.86	$1.04 \pm 0.041^{***}$	$9.46 \pm 0.631^{***}$	$-0.15 \pm 0.027^{***}$	277	0.97
L, PA	$0.44 \pm 0.037^{***}$	$4.16 \pm 0.184^{***}$	$0.25 \pm 0.011^{***}$	764	0.88	$0.91 \pm 0.029^{***}$	$7.09 \pm 0.303^{***}$	-0.02 ± 0.017	546	0.98
L, EH	$0.55 \pm 0.029^{***}$	$8.55 \pm 0.522^{***}$	$0.11 \pm 0.009^{***}$	686	0.84	$1.00 \pm 0.061^{***}$	$26.70 \pm 4.889^{***}$	$-0.22 \pm 0.033^{***}$	231	0.96
L, SG	$0.48 \pm 0.024^{***}$	$4.56 \pm 0.158^{***}$	$0.19 \pm 0.007^{***}$	1352	0.89	$1.13 \pm 0.031^{***}$	$8.11 \pm 0.302^{***}$	$-0.15 \pm 0.015^{***}$	897	0.96
M, AH	$0.42 \pm 0.021^{***}$	$5.05 \pm 0.153^{***}$	$0.20 \pm 0.006^{***}$	1532	0.89	$0.89 \pm 0.047^{***}$	$8.62 \pm 0.419^{***}$	$-0.05 \pm 0.023^{*}$	598	0.95
M, ND	$0.50 \pm 0.042^{***}$	$6.47 \pm 0.436^{***}$	$0.17 \pm 0.015^{***}$	423	0.78	$0.89 \pm 0.045^{***}$	$20.70 \pm 3.980^{***}$	$-0.13 \pm 0.032^{***}$	129	0.98
N, DR	$0.47 \pm 0.036^{***}$	$4.13 \pm 0.200^{***}$	$0.22 \pm 0.010^{***}$	740	0.87	$0.91 \pm 0.022^{***}$	$9.61 \pm 0.298^{***}$	$-0.06 \pm 0.012^{***}$	1063	0.97
P, G	$0.37 \pm 0.029^{***}$	$5.06 \pm 0.237^{***}$	$0.23 \pm 0.009^{***}$	1063	0.84	$1.03 \pm 0.038^{***}$	$6.78 \pm 0.381^{***}$	$-0.09 \pm 0.021^{***}$	596	0.95
P, M	$0.48 \pm 0.023^{***}$	$4.85 \pm 0.185^{***}$	$0.19 \pm 0.006^{***}$	1165	0.91	$1.17 \pm 0.019^{***}$	$9.04 \pm 0.479^{***}$	$-0.19 \pm 0.010^{***}$	585	0.98
P, JB	$0.42 \pm 0.026^{***}$	$6.69 \pm 0.334^{***}$	$0.17 \pm 0.008^{***}$	1100	0.84	$1.10 \pm 0.043^{***}$	$10.90 \pm 0.858^{***}$	$-0.19 \pm 0.022^{***}$	444	0.96
P, JP	$0.52 \pm 0.034^{***}$	$5.58 \pm 0.298^{***}$	$0.19 \pm 0.010^{***}$	667	0.88	$1.14 \pm 0.024^{***}$	$7.48 \pm 0.322^{***}$	$-0.08 \pm 0.015^{***}$	389	0.99
P, HD	$0.74 \pm 0.067^{***}$	$4.05 \pm 0.355^{***}$	$0.17 \pm 0.023^{***}$	273	0.84	$0.86 \pm 0.039^{***}$	$10.20 \pm 0.542^{***}$	$-0.06 \pm 0.026^{*}$	449	0.95
R, L	0.12 ± 0.061	$4.39 \pm 0.337^{***}$	$0.38 \pm 0.020^{***}$	491	0.77	$0.91 \pm 0.029^{***}$	$4.65 \pm 0.235^{***}$	$0.05 \pm 0.024^{*}$	275	0.99
S, DJ	$0.45 \pm 0.024^{***}$	$4.92 \pm 0.193^{***}$	$0.19 \pm 0.007^{***}$	1332	0.87	$0.83 \pm 0.033^{***}$	$9.82 \pm 0.432^{***}$	$-0.05 \pm 0.018^{*}$	923	0.94
S, DJ	$0.47 \pm 0.033^{***}$	$3.74 \pm 0.158^{***}$	$0.23 \pm 0.009^{***}$	966	0.85	$1.22 \pm 0.023^{***}$	$6.05 \pm 0.316^{***}$	$-0.14 \pm 0.013^{***}$	404	0.99
S, HE	$0.32 \pm 0.022^{***}$	$5.74 \pm 0.214^{***}$	$0.21 \pm 0.006^{***}$	1375	0.85	$0.97 \pm 0.047^{***}$	$6.48 \pm 0.270^{***}$	$-0.08 \pm 0.025^{**}$	436	0.95
S, PJ	$0.48 \pm 0.044^{***}$	$3.68 \pm 0.217^{***}$	$0.27 \pm 0.013^{***}$	523	0.88	$0.81 \pm 0.037^{***}$	$7.15 \pm 0.316^{***}$	$0.05 \pm 0.021^{*}$	428	0.97
T, J	$0.59 \pm 0.035^{***}$	$3.82 \pm 0.180^{***}$	$0.20 \pm 0.010^{***}$	755	0.89	$1.05 \pm 0.027^{***}$	$9.23 \pm 0.376^{***}$	$-0.12 \pm 0.014^{***}$	875	0.98
W, S	$0.28 \pm 0.047^{***}$	$4.33 \pm 0.270^{***}$	$0.33 \pm 0.015^{***}$	468	0.89	$0.83 \pm 0.068^{***}$	$5.10 \pm 0.401^{***}$	0.07 ± 0.041	267	0.96
W, KW	$0.27 \pm 0.028^{***}$	$8.69 \pm 0.578^{***}$	$0.25 \pm 0.008^{***}$	1094	0.87	$0.44 \pm 0.136^{**}$	$14.80 \pm 2.430^{***}$	$0.19 \pm 0.067^{**}$	187	0.95
W, F	$0.36 \pm 0.034^{***}$	$7.00 \pm 0.514^{***}$	$0.22 \pm 0.011^{***}$	831	0.84	$0.78 \pm 0.026^{***}$	$10.50 \pm 0.469^{***}$	0.01 ± 0.014	914	0.95
W, E	$0.20 \pm 0.044^{***}$	$18.50 \pm 4.325^{***}$	$0.32 \pm 0.013^{***}$	686	0.87	$0.70 \pm 0.022^{***}$	$12.00 \pm 0.447^{***}$	$0.06 \pm 0.012^{***}$	2060	0.95
W, WK	$0.73 \pm 0.053^{***}$	$7.31 \pm 0.565^{***}$	$0.15 \pm 0.019^{***}$	235	0.91	$0.96 \pm 0.036^{***}$	$18.60 \pm 2.193^{***}$	$-0.05 \pm 0.027^{*}$	142	0.99
Y, E	$0.58 \pm 0.036^{***}$	$5.18 \pm 0.265^{***}$	$0.18 \pm 0.011^{***}$	714	0.86	$1.42 \pm 0.042^{***}$	$7.67 \pm 0.655^{***}$	$-0.29 \pm 0.021^{***}$	375	0.98
Y, CN	$0.14 \pm 0.052^{**}$	$5.24 \pm 0.422^{***}$	$0.34 \pm 0.017^{***}$	469	0.82	$0.70 \pm 0.056^{***}$	$12.30 \pm 1.055^{***}$	0.02 ± 0.033	402	0.93
Z, P	$0.34 \pm 0.021^{***}$	$5.05 \pm 0.181^{***}$	$0.24 \pm 0.006^{***}$	1259	0.91	$1.12 \pm 0.027^{***}$	$5.40 \pm 0.172^{***}$	$-0.09 \pm 0.015^{***}$	665	0.97
Ave. $\pm$ Std. Dev.	0.43 ± 0.14	5.67 ± 2.52	0.22 ± 0.06	100	0.86 ± 0.04	0.96 ± 0.19	8.93 ± 4.09	-0.07 ± 0.11	97	0.96 ± 0.02

TABLE S14: Regression best-fit parameters for individual physics careers: dataset [A], 1-50.

	$c(t-1) < c_\times$					$c(t-1) \geq c_\times$				
Name	π_i	$\overline{\tau}_i$	ρ_i	N_i	Adj. R_i^2	π_i	$\overline{\tau}_i$	ρ_i	N_i	Adj. R_i^2
S, R	$0.42 \pm 0.177^{*}$	$2.47 \pm 0.360^{***}$	$0.40 \pm 0.057^{***}$	175	0.69	$0.99 \pm 0.053^{***}$	$3.47 \pm 0.242^{***}$	0.03 ± 0.044	94	0.99
C, N	$0.21 \pm 0.044^{***}$	$5.85 \pm 0.334^{***}$	$0.29 \pm 0.015^{***}$	501	0.84	$0.97 \pm 0.041^{***}$	$8.12 \pm 0.527^{***}$	$-0.14 \pm 0.028^{***}$	263	0.94
P, LN	$0.21 \pm 0.035^{***}$	$11.80 \pm 1.285^{***}$	$0.29 \pm 0.011^{***}$	589	0.89	$0.37 \pm 0.172^{*}$	$8.46 \pm 1.105^{***}$	$0.24 \pm 0.089^{**}$	71	0.97
A, I	$0.42 \pm 0.029^{***}$	$5.78 \pm 0.275^{***}$	$0.20 \pm 0.008^{***}$	993	0.84	$0.93 \pm 0.027^{***}$	$11.40 \pm 0.510^{***}$	$-0.09 \pm 0.015^{***}$	858	0.97
G, AC	$0.34 \pm 0.027^{***}$	$4.92 \pm 0.261^{***}$	$0.25 \pm 0.008^{***}$	977	0.90	$0.80 \pm 0.048^{***}$	$4.73 \pm 0.184^{***}$	$0.09 \pm 0.024^{***}$	356	0.97
E, VJ	$0.45 \pm 0.054^{***}$	$6.35 \pm 0.434^{***}$	$0.21 \pm 0.020^{***}$	300	0.84	$0.54 \pm 0.107^{***}$	$7.40 \pm 0.551^{***}$	$0.16 \pm 0.069^{*}$	94	0.97
B, P	$0.22 \pm 0.034^{***}$	$7.72 \pm 0.566^{***}$	$0.26 \pm 0.011^{***}$	804	0.82	$1.05 \pm 0.030^{***}$	$7.20 \pm 0.393^{***}$	$-0.09 \pm 0.019^{***}$	542	0.97
C, ML	$0.31 \pm 0.029^{***}$	$6.99 \pm 0.382^{***}$	$0.21 \pm 0.008^{***}$	772	0.84	$1.03 \pm 0.063^{***}$	$6.35 \pm 0.697^{***}$	$-0.10 \pm 0.044^{*}$	73	0.98
W, SR	$0.60 \pm 0.038^{***}$	$3.99 \pm 0.207^{***}$	$0.19 \pm 0.012^{***}$	598	0.87	$1.23 \pm 0.027^{***}$	$6.87 \pm 0.295^{***}$	$-0.22 \pm 0.016^{***}$	528	0.98
S, RH	$0.49 \pm 0.039^{***}$	$6.41 \pm 0.348^{***}$	$0.19 \pm 0.014^{***}$	499	0.86	$0.96 \pm 0.041^{***}$	$5.89 \pm 0.319^{***}$	-0.00 ± 0.029	224	0.98
P, JC	$0.50 \pm 0.023^{***}$	$4.16 \pm 0.154^{***}$	$0.18 \pm 0.007^{***}$	1161	0.85	$1.12 \pm 0.036^{***}$	$7.37 \pm 0.295^{***}$	$-0.17 \pm 0.020^{***}$	436	0.96
I, F	$0.71 \pm 0.035^{***}$	$3.11 \pm 0.158^{***}$	$0.18 \pm 0.011^{***}$	477	0.89	$1.06 \pm 0.035^{***}$	$5.10 \pm 0.226^{***}$	$-0.08 \pm 0.021^{***}$	290	0.98
E, DE	$0.34 \pm 0.028^{***}$	$4.79 \pm 0.181^{***}$	$0.23 \pm 0.009^{***}$	1181	0.84	$0.73 \pm 0.039^{***}$	$8.60 \pm 0.337^{***}$	0.00 ± 0.021	869	0.93
W, DA	$0.39 \pm 0.025^{***}$	$5.84 \pm 0.253^{***}$	$0.21 \pm 0.007^{***}$	949	0.91	$0.82 \pm 0.039^{***}$	$8.05 \pm 0.348^{***}$	0.03 ± 0.019	464	0.97
O, E	$0.41 \pm 0.023^{***}$	$6.66 \pm 0.266^{***}$	$0.19 \pm 0.007^{***}$	1406	0.86	$1.09 \pm 0.049^{***}$	$8.91 \pm 0.734^{***}$	$-0.12 \pm 0.027^{***}$	461	0.94
P, A	$0.36 \pm 0.032^{***}$	$13.60 \pm 0.828^{***}$	$0.13 \pm 0.010^{***}$	723	0.75	$1.98 \pm 0.302^{***}$	$10.40 \pm 1.660^{***}$	$-0.60 \pm 0.187^{**}$	25	0.98
K, HJ	$0.59 \pm 0.038^{***}$	$3.65 \pm 0.196^{***}$	$0.21 \pm 0.012^{***}$	475	0.91	$0.85 \pm 0.050^{***}$	$7.64 \pm 0.446^{***}$	0.01 ± 0.028	313	0.96
H, H	$0.40 \pm 0.068^{***}$	$3.16 \pm 0.240^{***}$	$0.32 \pm 0.024^{***}$	265	0.88	$0.94 \pm 0.074^{***}$	$3.38 \pm 0.180^{***}$	-0.00 ± 0.046	190	0.95
V, CM	$0.27 \pm 0.034^{***}$	$5.23 \pm 0.285^{***}$	$0.27 \pm 0.010^{***}$	659	0.86	$1.05 \pm 0.037^{***}$	$8.23 \pm 0.447^{***}$	$-0.12 \pm 0.021^{***}$	420	0.97
B, CWJ	$0.65 \pm 0.029^{***}$	$3.98 \pm 0.143^{***}$	$0.16 \pm 0.008^{***}$	1240	0.86	$0.98 \pm 0.017^{***}$	$6.97 \pm 0.194^{***}$	$-0.07 \pm 0.010^{***}$	834	0.98
E, JH	$0.35 \pm 0.028^{***}$	$6.92 \pm 0.388^{***}$	$0.21 \pm 0.009^{***}$	821	0.85	$0.80 \pm 0.100^{***}$	$8.19 \pm 0.788^{***}$	0.02 ± 0.052	238	0.94
S, M	$0.31 \pm 0.025^{***}$	$6.58 \pm 0.420^{***}$	$0.22 \pm 0.007^{***}$	1331	0.87	$0.96 \pm 0.034^{***}$	$6.32 \pm 0.222^{***}$	$-0.05 \pm 0.017^{**}$	807	0.96
T, DC	$0.32 \pm 0.027^{***}$	$5.17 \pm 0.221^{***}$	$0.23 \pm 0.008^{***}$	1138	0.86	$0.97 \pm 0.043^{***}$	$6.67 \pm 0.378^{***}$	$-0.06 \pm 0.023^{**}$	392	0.95
P, SSP	$0.48 \pm 0.030^{***}$	$3.69 \pm 0.127^{***}$	$0.24 \pm 0.008^{***}$	1413	0.85	$0.94 \pm 0.020^{***}$	$4.73 \pm 0.114^{***}$	0.00 ± 0.012	950	0.97
A, A	$0.42 \pm 0.024^{***}$	$4.97 \pm 0.182^{***}$	$0.20 \pm 0.007^{***}$	1304	0.84	$0.77 \pm 0.035^{***}$	$7.03 \pm 0.216^{***}$	0.02 ± 0.020	760	0.95
O, SR	$0.76 \pm 0.058^{***}$	$4.24 \pm 0.324^{***}$	$0.15 \pm 0.021^{***}$	256	0.84	$0.98 \pm 0.048^{***}$	$9.11 \pm 0.560^{***}$	$-0.18 \pm 0.035^{***}$	193	0.96
K, G	$0.49 \pm 0.028^{***}$	$4.23 \pm 0.181^{***}$	$0.20 \pm 0.008^{***}$	951	0.87	$1.06 \pm 0.025^{***}$	$5.75 \pm 0.205^{***}$	$-0.07 \pm 0.015^{***}$	438	0.98
M, RN	$0.34 \pm 0.026^{***}$	$8.76 \pm 0.522^{***}$	$0.17 \pm 0.008^{***}$	1317	0.81	$1.02 \pm 0.034^{***}$	$23.00 \pm 2.461^{***}$	$-0.20 \pm 0.018^{***}$	660	0.96
B, CH	$0.41 \pm 0.051^{***}$	$6.40 \pm 0.634^{***}$	$0.25 \pm 0.018^{***}$	210	0.90	$0.59 \pm 0.086^{***}$	$16.20 \pm 2.993^{***}$	0.10 ± 0.051	78	0.97
Z, A	$0.37 \pm 0.019^{***}$	$5.54 \pm 0.180^{***}$	$0.19 \pm 0.005^{***}$	1819	0.88	$1.32 \pm 0.016^{***}$	$8.13 \pm 0.325^{***}$	$-0.26 \pm 0.008^{***}$	790	0.99
F, DS	$0.19 \pm 0.037^{***}$	$8.61 \pm 0.978^{***}$	$0.26 \pm 0.012^{***}$	686	0.82	$1.11 \pm 0.025^{***}$	$9.59 \pm 0.424^{***}$	$-0.16 \pm 0.014^{***}$	837	0.97
S, YR	$0.42 \pm 0.021^{***}$	$5.14 \pm 0.177^{***}$	$0.19 \pm 0.006^{***}$	1356	0.87	$0.58 \pm 0.059^{***}$	$8.70 \pm 0.395^{***}$	$0.09 \pm 0.029^{**}$	548	0.93
B, G	$0.51 \pm 0.048^{***}$	$3.71 \pm 0.237^{***}$	$0.27 \pm 0.016^{***}$	382	0.87	$1.31 \pm 0.022^{***}$	$5.74 \pm 0.212^{***}$	$-0.24 \pm 0.014^{***}$	424	0.99
B, J	$0.41 \pm 0.036^{***}$	$6.40 \pm 0.321^{***}$	$0.19 \pm 0.012^{***}$	506	0.86	$1.00 \pm 0.028^{***}$	$9.09 \pm 0.460^{***}$	$-0.11 \pm 0.022^{***}$	275	0.98
H, TW	$0.56 \pm 0.032^{***}$	$4.44 \pm 0.215^{***}$	$0.18 \pm 0.009^{***}$	618	0.86	$0.95 \pm 0.051^{***}$	$8.16 \pm 0.484^{***}$	$-0.11 \pm 0.033^{**}$	316	0.94
S, JR	$0.36 \pm 0.049^{***}$	$3.86 \pm 0.266^{***}$	$0.29 \pm 0.015^{***}$	302	0.88	$1.00 \pm 0.024^{***}$	$6.57 \pm 0.252^{***}$	$-0.06 \pm 0.015^{***}$	284	0.98
J, R	$0.40 \pm 0.039^{***}$	$5.06 \pm 0.283^{***}$	$0.24 \pm 0.012^{***}$	664	0.87	$0.98 \pm 0.031^{***}$	$10.80 \pm 0.545^{***}$	$-0.10 \pm 0.017^{***}$	768	0.96
T, M	$0.41 \pm 0.036^{***}$	$6.98 \pm 0.443^{***}$	$0.18 \pm 0.012^{***}$	511	0.84	$0.79 \pm 0.105^{***}$	$10.70 \pm 0.992^{***}$	-0.04 ± 0.060	178	0.93
A, E	$0.43 \pm 0.066^{***}$	$5.25 \pm 0.473^{***}$	$0.31 \pm 0.024^{***}$	149	0.89	$0.99 \pm 0.186^{***}$	$8.31 \pm 1.153^{***}$	-0.05 ± 0.120	73	0.96
S, LM	$0.55 \pm 0.044^{***}$	$4.74 \pm 0.296^{***}$	$0.21 \pm 0.015^{***}$	450	0.84	$1.03 \pm 0.031^{***}$	$6.88 \pm 0.417^{***}$	$-0.09 \pm 0.021^{***}$	200	0.99
S, MO	$0.52 \pm 0.027^{***}$	$5.74 \pm 0.249^{***}$	$0.16 \pm 0.008^{***}$	965	0.85	$0.97 \pm 0.060^{***}$	$8.98 \pm 0.596^{***}$	$-0.10 \pm 0.032^{**}$	217	0.96
R, TM	$0.35 \pm 0.036^{***}$	$4.93 \pm 0.260^{***}$	$0.26 \pm 0.011^{***}$	825	0.85	$1.04 \pm 0.037^{***}$	$10.10 \pm 0.477^{***}$	$-0.14 \pm 0.021^{***}$	651	0.95
L, MD	$0.58 \pm 0.050^{***}$	$2.10 \pm 0.167^{***}$	$0.30 \pm 0.015^{***}$	365	0.92	$0.97 \pm 0.031^{***}$	$3.95 \pm 0.160^{***}$	0.03 ± 0.017	257	0.99
F, RP	$0.22 \pm 0.083^{**}$	$8.45 \pm 1.933^{***}$	$0.29 \pm 0.032^{***}$	171	0.77	$0.63 \pm 0.060^{***}$	$7.58 \pm 0.576^{***}$	$0.15 \pm 0.047^{**}$	198	0.96
D, S	$0.41 \pm 0.021^{***}$	$4.52 \pm 0.165^{***}$	$0.19 \pm 0.006^{***}$	1544	0.84	$1.08 \pm 0.043^{***}$	$6.62 \pm 0.372^{***}$	$-0.15 \pm 0.023^{***}$	367	0.96
H, JE	$0.66 \pm 0.032^{***}$	$4.59 \pm 0.181^{***}$	$0.15 \pm 0.011^{***}$	959	0.83	$0.79 \pm 0.038^{***}$	$10.30 \pm 0.576^{***}$	-0.04 ± 0.023	597	0.94
D, SD	$0.33 \pm 0.040^{***}$	$4.16 \pm 0.202^{***}$	$0.32 \pm 0.014^{***}$	420	0.91	$0.59 \pm 0.122^{***}$	$5.86 \pm 0.411^{***}$	$0.15 \pm 0.070^{*}$	224	0.94
I, Y	$0.35 \pm 0.031^{***}$	$6.02 \pm 0.274^{***}$	$0.22 \pm 0.010^{***}$	765	0.86	$1.22 \pm 0.047^{***}$	$6.91 \pm 0.460^{***}$	$-0.20 \pm 0.025^{***}$	254	0.97
S, GA	$0.48 \pm 0.027^{***}$	$5.72 \pm 0.233^{***}$	$0.20 \pm 0.008^{***}$	936	0.89	$0.86 \pm 0.050^{***}$	$9.51 \pm 0.589^{***}$	-0.02 ± 0.027	300	0.97
S, JJ	$0.38 \pm 0.052^{***}$	$4.02 \pm 0.371^{***}$	$0.29 \pm 0.019^{***}$	344	0.84	$1.00 \pm 0.046^{***}$	$6.96 \pm 0.383^{***}$	$-0.16 \pm 0.028^{***}$	292	0.94
Ave. $\pm$ Std. Dev.	0.43 ± 0.14	5.67 ± 2.52	0.22 ± 0.06	100	0.86 ± 0.04	0.96 ± 0.19	8.93 ± 4.09	-0.07 ± 0.11	97	0.96 ± 0.02

TABLE S15: Regression best-fit parameters for individual physics careers: dataset [A], 51-100.

Name	$c(t-1) < c_\times$					$c(t-1) \geq c_\times$				
	π_i	$\overline{\tau}_i$	ρ_i	N_i	Adj. R_i^2	π_i	$\overline{\tau}_i$	ρ_i	N_i	Adj. R_i^2
A, P	$0.14 \pm 0.055^{*}$	$14.40 \pm 2.651^{***}$	$0.30 \pm 0.018^{***}$	360	0.82	$1.06 \pm 0.064^{***}$	$9.84 \pm 0.705^{***}$	$-0.12 \pm 0.036^{**}$	277	0.95
B, L	$0.52 \pm 0.035^{***}$	$3.66 \pm 0.200^{***}$	$0.21 \pm 0.012^{***}$	411	0.89	$0.98 \pm 0.086^{***}$	$5.69 \pm 0.458^{***}$	-0.10 ± 0.051	88	0.96
B, K	$0.38 \pm 0.019^{***}$	$6.36 \pm 0.236^{***}$	$0.18 \pm 0.005^{***}$	1651	0.88	$1.03 \pm 0.026^{***}$	$8.14 \pm 0.343^{***}$	$-0.09 \pm 0.016^{***}$	721	0.96
B, RW	$0.39 \pm 0.028^{***}$	$7.29 \pm 0.430^{***}$	$0.16 \pm 0.009^{***}$	685	0.82	$1.14 \pm 0.095^{***}$	$7.26 \pm 0.752^{***}$	$-0.22 \pm 0.053^{***}$	140	0.93
B, AJ	$0.44 \pm 0.028^{***}$	$6.41 \pm 0.291^{***}$	$0.18 \pm 0.009^{***}$	953	0.83	$1.02 \pm 0.055^{***}$	$6.46 \pm 0.315^{***}$	$-0.09 \pm 0.034^{**}$	340	0.95
B, JH	$0.39 \pm 0.032^{***}$	$5.06 \pm 0.245^{***}$	$0.24 \pm 0.010^{***}$	822	0.86	$0.90 \pm 0.067^{***}$	$4.82 \pm 0.306^{***}$	-0.01 ± 0.039	259	0.95
B, RA	$0.37 \pm 0.025^{***}$	$6.04 \pm 0.241^{***}$	$0.19 \pm 0.007^{***}$	1106	0.84	$0.93 \pm 0.068^{***}$	$6.44 \pm 0.358^{***}$	$-0.08 \pm 0.035^{*}$	279	0.94
C, G	$0.58 \pm 0.042^{***}$	$5.99 \pm 0.507^{***}$	$0.15 \pm 0.014^{***}$	319	0.87	$1.42 \pm 0.066^{***}$	$11.90 \pm 2.245^{***}$	$-0.38 \pm 0.030^{***}$	95	0.99
D, C	$0.54 \pm 0.043^{***}$	$2.62 \pm 0.168^{***}$	$0.26 \pm 0.011^{***}$	579	0.89	$1.04 \pm 0.019^{***}$	$3.78 \pm 0.113^{***}$	-0.01 ± 0.011	482	0.99
D, G	$0.43 \pm 0.042^{***}$	$5.82 \pm 0.461^{***}$	$0.20 \pm 0.013^{***}$	332	0.84	$1.00 \pm 0.047^{***}$	$10.20 \pm 0.673^{***}$	$-0.17 \pm 0.033^{***}$	139	0.97
E, JP	$0.47 \pm 0.043^{***}$	$5.08 \pm 0.360^{***}$	$0.25 \pm 0.015^{***}$	350	0.90	$0.75 \pm 0.057^{***}$	$8.27 \pm 0.484^{***}$	0.03 ± 0.031	341	0.96
F, AR	$0.41 \pm 0.041^{***}$	$4.20 \pm 0.201^{***}$	$0.27 \pm 0.013^{***}$	639	0.85	$1.11 \pm 0.113^{***}$	$4.51 \pm 0.370^{***}$	-0.01 ± 0.072	101	0.97
F, KJ	$0.47 \pm 0.064^{***}$	$3.81 \pm 0.341^{***}$	$0.28 \pm 0.024^{***}$	225	0.81	$0.98 \pm 0.090^{***}$	$4.21 \pm 0.231^{***}$	-0.04 ± 0.056	160	0.96
F, D	$0.46 \pm 0.024^{***}$	$5.39 \pm 0.228^{***}$	$0.18 \pm 0.007^{***}$	1024	0.89	$1.01 \pm 0.063^{***}$	$6.95 \pm 0.458^{***}$	$-0.09 \pm 0.029^{**}$	345	0.96
G, SC	$0.53 \pm 0.040^{***}$	$3.67 \pm 0.243^{***}$	$0.22 \pm 0.012^{***}$	406	0.91	$0.93 \pm 0.048^{***}$	$3.84 \pm 0.192^{***}$	$0.05 \pm 0.026^{*}$	192	0.98
H, P	$0.43 \pm 0.026^{***}$	$5.47 \pm 0.217^{***}$	$0.20 \pm 0.007^{***}$	1121	0.86	$1.08 \pm 0.028^{***}$	$5.17 \pm 0.194^{***}$	$-0.07 \pm 0.018^{***}$	379	0.98
H, SW	$0.30 \pm 0.038^{***}$	$5.36 \pm 0.321^{***}$	$0.28 \pm 0.012^{***}$	519	0.88	$0.97 \pm 0.034^{***}$	$10.50 \pm 0.549^{***}$	$-0.11 \pm 0.020^{***}$	526	0.97
H, HJ	$0.44 \pm 0.020^{***}$	$6.18 \pm 0.244^{***}$	$0.16 \pm 0.006^{***}$	1391	0.84	$0.60 \pm 0.049^{***}$	$9.14 \pm 0.436^{***}$	0.05 ± 0.027	495	0.93
H, F	$0.32 \pm 0.042^{***}$	$9.10 \pm 0.734^{***}$	$0.24 \pm 0.016^{***}$	226	0.87	$0.81 \pm 0.294^{**}$	$24.60 \pm 9.151^{**}$	-0.21 ± 0.179	54	0.83
I, J	$0.41 \pm 0.035^{***}$	$5.68 \pm 0.296^{***}$	$0.22 \pm 0.011^{***}$	567	0.87	$1.16 \pm 0.041^{***}$	$7.52 \pm 0.349^{***}$	$-0.19 \pm 0.024^{***}$	245	0.98
J, PK	$0.43 \pm 0.027^{***}$	$5.61 \pm 0.260^{***}$	$0.17 \pm 0.009^{***}$	736	0.81	0.04 ± 0.182	$7.01 \pm 0.654^{***}$	$0.38 \pm 0.097^{***}$	73	0.94
K, LP	$0.70 \pm 0.050^{***}$	$4.18 \pm 0.249^{***}$	$0.18 \pm 0.016^{***}$	370	0.89	$0.81 \pm 0.035^{***}$	$6.93 \pm 0.282^{***}$	0.03 ± 0.022	301	0.98
K, E	$0.52 \pm 0.025^{***}$	$4.88 \pm 0.204^{***}$	$0.17 \pm 0.007^{***}$	1083	0.87	$1.00 \pm 0.030^{***}$	$7.44 \pm 0.376^{***}$	$-0.08 \pm 0.017^{***}$	441	0.97
K, W	$0.16 \pm 0.036^{***}$	$15.90 \pm 3.023^{***}$	$0.30 \pm 0.013^{***}$	823	0.86	$1.32 \pm 0.053^{***}$	$10.50 \pm 0.964^{***}$	$-0.29 \pm 0.027^{***}$	372	0.98
K, W	$0.41 \pm 0.035^{***}$	$5.36 \pm 0.291^{***}$	$0.23 \pm 0.011^{***}$	604	0.88	$0.66 \pm 0.125^{***}$	$5.43 \pm 0.552^{***}$	0.12 ± 0.068	100	0.96
L, P	$0.28 \pm 0.032^{***}$	$7.60 \pm 0.576^{***}$	$0.21 \pm 0.011^{***}$	566	0.81	$1.17 \pm 0.073^{***}$	$6.79 \pm 0.476^{***}$	$-0.23 \pm 0.042^{***}$	155	0.96
L, M	$0.23 \pm 0.029^{***}$	$7.67 \pm 0.416^{***}$	$0.21 \pm 0.008^{***}$	929	0.80	$0.61 \pm 0.134^{***}$	$5.93 \pm 0.479^{***}$	$0.18 \pm 0.076^{*}$	58	0.97
L, AJ	$0.40 \pm 0.060^{***}$	$6.59 \pm 0.571^{***}$	$0.28 \pm 0.022^{***}$	320	0.80	$0.73 \pm 0.061^{***}$	$7.61 \pm 0.606^{***}$	$0.11 \pm 0.044^{*}$	148	0.98
L, H	$0.35 \pm 0.025^{***}$	$6.36 \pm 0.311^{***}$	$0.19 \pm 0.007^{***}$	1149	0.85	$0.91 \pm 0.051^{***}$	$7.10 \pm 0.418^{***}$	$-0.06 \pm 0.028^{*}$	310	0.96
M, L	$0.48 \pm 0.034^{***}$	$6.28 \pm 0.319^{***}$	$0.18 \pm 0.010^{***}$	655	0.82	$0.70 \pm 0.042^{***}$	$8.94 \pm 0.497^{***}$	$0.06 \pm 0.026^{*}$	146	0.98
M, DE	$0.36 \pm 0.042^{***}$	$4.47 \pm 0.246^{***}$	$0.27 \pm 0.014^{***}$	482	0.85	$0.55 \pm 0.049^{***}$	$5.09 \pm 0.197^{***}$	$0.21 \pm 0.031^{***}$	451	0.92
M, GE	$0.40 \pm 0.030^{***}$	$7.42 \pm 0.363^{***}$	$0.18 \pm 0.009^{***}$	902	0.81	$1.05 \pm 0.101^{***}$	$6.93 \pm 0.491^{***}$	-0.07 ± 0.061	103	0.97
O, SA	$0.39 \pm 0.029^{***}$	$8.80 \pm 0.528^{***}$	$0.18 \pm 0.009^{***}$	601	0.88	$0.84 \pm 0.083^{***}$	$15.90 \pm 1.880^{***}$	$-0.09 \pm 0.042^{*}$	250	0.95
P, PM	$0.38 \pm 0.036^{***}$	$6.95 \pm 0.392^{***}$	$0.21 \pm 0.012^{***}$	628	0.83	$0.85 \pm 0.103^{***}$	$12.70 \pm 1.304^{***}$	-0.11 ± 0.057	161	0.93
P, VL	$0.37 \pm 0.046^{***}$	$10.70 \pm 1.227^{***}$	$0.19 \pm 0.018^{***}$	269	0.81	$0.74 \pm 0.122^{***}$	$7.80 \pm 1.124^{***}$	0.01 ± 0.084	76	0.93
P, CY	$0.54 \pm 0.092^{***}$	$3.50 \pm 0.317^{***}$	$0.28 \pm 0.032^{***}$	204	0.75	$0.67 \pm 0.148^{***}$	$5.48 \pm 0.629^{***}$	0.14 ± 0.117	52	0.97
S, BEA	$0.35 \pm 0.029^{***}$	$8.47 \pm 0.488^{***}$	$0.17 \pm 0.009^{***}$	747	0.78	$1.34 \pm 0.162^{***}$	$18.10 \pm 6.035^{**}$	$-0.40 \pm 0.099^{***}$	69	0.95
S, D	$0.48 \pm 0.019^{***}$	$6.21 \pm 0.206^{***}$	$0.14 \pm 0.005^{***}$	1674	0.84	$1.00 \pm 0.041^{***}$	$7.66 \pm 0.385^{***}$	$-0.11 \pm 0.021^{***}$	410	0.96
S, F	$0.53 \pm 0.027^{***}$	$3.39 \pm 0.155^{***}$	$0.20 \pm 0.008^{***}$	933	0.90	$1.15 \pm 0.037^{***}$	$7.21 \pm 0.361^{***}$	$-0.18 \pm 0.018^{***}$	555	0.97
S, J	$0.60 \pm 0.069^{***}$	$1.60 \pm 0.144^{***}$	$0.36 \pm 0.026^{***}$	195	0.90	$1.15 \pm 0.068^{***}$	$1.61 \pm 0.112^{***}$	0.05 ± 0.048	65	0.99
S, L	$0.54 \pm 0.039^{***}$	$6.03 \pm 0.318^{***}$	$0.18 \pm 0.014^{***}$	444	0.86	$0.83 \pm 0.053^{***}$	$6.43 \pm 0.314^{***}$	0.02 ± 0.032	200	0.98
S, GF	$0.37 \pm 0.063^{***}$	84.80 ± 139.000	$0.26 \pm 0.022^{***}$	396	0.81	$0.92 \pm 0.093^{***}$	$10.90 \pm 2.618^{***}$	-0.03 ± 0.059	152	0.94
S, KR	$0.35 \pm 0.033^{***}$	$8.00 \pm 0.468^{***}$	$0.21 \pm 0.011^{***}$	580	0.87	$0.93 \pm 0.061^{***}$	$7.82 \pm 0.582^{***}$	-0.06 ± 0.037	195	0.96
S, EA	$0.50 \pm 0.040^{***}$	$4.59 \pm 0.299^{***}$	$0.20 \pm 0.013^{***}$	365	0.87	$1.53 \pm 0.093^{***}$	$4.44 \pm 0.257^{***}$	$-0.32 \pm 0.050^{***}$	64	0.99
S, A	$0.45 \pm 0.056^{***}$	$5.60 \pm 0.471^{***}$	$0.28 \pm 0.018^{***}$	610	0.82	$0.79 \pm 0.031^{***}$	$10.90 \pm 0.770^{***}$	0.01 ± 0.019	612	0.95
S, S	$0.47 \pm 0.028^{***}$	$7.22 \pm 0.444^{***}$	$0.16 \pm 0.009^{***}$	693	0.86	$0.88 \pm 0.052^{***}$	$17.00 \pm 3.049^{***}$	$-0.08 \pm 0.030^{**}$	170	0.97
T, MS	$0.16 \pm 0.030^{***}$	$8.04 \pm 0.441^{***}$	$0.26 \pm 0.009^{***}$	1333	0.80	$0.69 \pm 0.035^{***}$	$5.00 \pm 0.177^{***}$	$0.20 \pm 0.022^{***}$	825	0.92
W, RE	$0.51 \pm 0.026^{***}$	$5.70 \pm 0.271^{***}$	$0.15 \pm 0.008^{***}$	923	0.83	$1.08 \pm 0.034^{***}$	$12.60 \pm 0.688^{***}$	$-0.22 \pm 0.020^{***}$	572	0.95
W, RB	$0.39 \pm 0.034^{***}$	$7.31 \pm 0.471^{***}$	$0.19 \pm 0.011^{***}$	559	0.86	$0.69 \pm 0.078^{***}$	$12.10 \pm 1.381^{***}$	-0.00 ± 0.046	230	0.93
W, H	$0.37 \pm 0.047^{***}$	$4.83 \pm 0.346^{***}$	$0.27 \pm 0.017^{***}$	257	0.89	$0.33 \pm 0.123^{**}$	$9.01 \pm 1.007^{***}$	$0.26 \pm 0.077^{**}$	103	0.95
Ave. $\pm$ Std. Dev.	0.42 ± 0.11	6.93 ± 8.55	0.23 ± 0.06	100	0.85 ± 0.04	0.86 ± 0.31	7.73 ± 3.82	-0.01 ± 0.18	94	0.95 ± 0.03

TABLE S16: Regression best-fit parameters for individual physics careers: dataset [B], 1-50.

	$c(t-1) < c_{\times}$					$c(t-1) \geq c_{\times}$				
Name	π_i	$\overline{\tau}_i$	ρ_i	N_i	Adj. R^2_i	π_i	$\overline{\tau}_i$	ρ_i	N_i	Adj. R^2_i
K, WR	0.70 ± 0.067***	2.31 ± 0.161***	0.33 ± 0.022***	291	0.93	0.79 ± 0.047***	4.10 ± 0.242***	0.12 ± 0.030***	267	0.98
B, SJ	0.39 ± 0.033***	4.59 ± 0.260***	0.25 ± 0.011***	640	0.87	0.85 ± 0.038***	8.75 ± 0.452***	−0.05 ± 0.021*	606	0.94
P, CJ	0.46 ± 0.035***	6.05 ± 0.357***	0.18 ± 0.011***	561	0.84	0.79 ± 0.082***	8.31 ± 0.673***	−0.00 ± 0.050	150	0.95
G, AM	0.50 ± 0.043***	4.41 ± 0.260***	0.23 ± 0.014***	386	0.88	0.01 ± 0.335	7.23 ± 1.718***	0.43 ± 0.196*	32	0.97
K, L	0.48 ± 0.033***	5.83 ± 0.362***	0.15 ± 0.010***	597	0.82	1.12 ± 0.040***	10.60 ± 0.779***	−0.27 ± 0.023***	189	0.96
L, RA	0.37 ± 0.042***	5.43 ± 0.446***	0.20 ± 0.014***	312	0.82	0.20 ± 0.824	21.80 ± 22.860	0.10 ± 0.515	26	0.78
B, BB	0.35 ± 0.035***	6.83 ± 0.524***	0.21 ± 0.013***	474	0.81	0.20 ± 0.171	13.00 ± 2.923***	0.29 ± 0.102**	187	0.82
C, NS	0.37 ± 0.037***	7.19 ± 0.497***	0.15 ± 0.011***	478	0.75	1.09 ± 0.272***	8.23 ± 1.685***	−0.23 ± 0.180	39	0.90
B, WF	0.38 ± 0.065***	5.20 ± 0.449***	0.30 ± 0.025***	187	0.90	0.00 ± 0.181	6.00 ± 0.548***	0.47 ± 0.120***	82	0.93
A, DE	0.41 ± 0.024***	7.73 ± 0.318***	0.18 ± 0.007***	1353	0.84	0.95 ± 0.037***	12.90 ± 0.906***	−0.09 ± 0.021***	503	0.96
L, MS	0.30 ± 0.043***	7.74 ± 0.761***	0.21 ± 0.016***	257	0.81	−0.56 ± 0.505	7.14 ± 1.322***	0.80 ± 0.298*	41	0.89
M, P	0.35 ± 0.035***	5.61 ± 0.398***	0.22 ± 0.011***	559	0.82	1.14 ± 0.069***	5.25 ± 0.331***	−0.18 ± 0.042***	175	0.95
G, GW	0.38 ± 0.033***	8.05 ± 0.519***	0.21 ± 0.010***	688	0.85	0.96 ± 0.054***	13.90 ± 1.456***	−0.10 ± 0.030***	315	0.96
E, RW	0.48 ± 0.079***	2.98 ± 0.183***	0.45 ± 0.030***	314	0.91	0.84 ± 0.100***	3.37 ± 0.499***	0.16 ± 0.073*	57	0.98
B, KI	0.34 ± 0.050***	5.67 ± 0.467***	0.23 ± 0.018***	290	0.82	0.42 ± 0.237	8.60 ± 1.078***	0.17 ± 0.151	62	0.93
M, JE	0.35 ± 0.035***	4.58 ± 0.254***	0.29 ± 0.012***	554	0.88	1.20 ± 0.078***	4.80 ± 0.247***	−0.15 ± 0.042***	248	0.95
H, MS	0.45 ± 0.033***	6.94 ± 0.443***	0.16 ± 0.010***	623	0.77	0.68 ± 0.458	4.12 ± 0.708***	0.23 ± 0.266	29	0.95
B, RH	0.30 ± 0.053***	3.91 ± 0.356***	0.35 ± 0.019***	268	0.86	0.71 ± 0.108***	4.14 ± 0.281***	0.14 ± 0.068*	130	0.96
G, W	0.46 ± 0.041***	6.19 ± 0.470***	0.17 ± 0.014***	362	0.81	0.17 ± 0.452	6.67 ± 1.287***	0.38 ± 0.275	18	0.96
F, PA	0.52 ± 0.043***	5.20 ± 0.270***	0.19 ± 0.016***	452	0.85	0.58 ± 0.103***	6.45 ± 0.338***	0.15 ± 0.060*	223	0.92
F, JC	0.34 ± 0.048***	5.25 ± 0.328***	0.28 ± 0.017***	356	0.87	0.68 ± 0.159***	8.15 ± 1.244***	0.04 ± 0.099	66	0.94
C, EM	0.39 ± 0.045***	3.71 ± 0.226***	0.29 ± 0.016***	336	0.89	1.10 ± 0.031***	4.89 ± 0.199***	−0.06 ± 0.022**	269	0.99
S, RD	0.52 ± 0.044***	4.27 ± 0.312***	0.22 ± 0.015***	369	0.88	0.47 ± 0.205*	4.88 ± 0.727***	0.24 ± 0.116*	88	0.93
W, IA	0.48 ± 0.030***	5.27 ± 0.254***	0.19 ± 0.009***	712	0.88	0.85 ± 0.063***	5.77 ± 0.367***	0.03 ± 0.037	188	0.97
V, JJM	0.35 ± 0.032***	6.02 ± 0.313***	0.23 ± 0.011***	651	0.88	1.25 ± 0.054***	7.06 ± 0.416***	−0.25 ± 0.028***	326	0.95
K, TR	0.44 ± 0.029***	7.56 ± 0.402***	0.15 ± 0.009***	881	0.79	0.86 ± 0.060***	10.80 ± 0.963***	−0.04 ± 0.039	319	0.94
G, DC	0.55 ± 0.062***	3.66 ± 0.396***	0.26 ± 0.022***	179	0.89	1.00 ± 0.086***	5.84 ± 0.444***	−0.09 ± 0.055	129	0.96
M, BT	0.39 ± 0.026***	10.00 ± 0.554***	0.12 ± 0.008***	1040	0.77	0.63 ± 0.111***	7.96 ± 0.633***	0.09 ± 0.066	134	0.95
L, RB	0.52 ± 0.053***	4.04 ± 0.225***	0.26 ± 0.019***	376	0.89	0.61 ± 0.117***	2.95 ± 0.280***	0.24 ± 0.074**	119	0.95
S, S	0.12 ± 0.032***	17.80 ± 2.180***	0.24 ± 0.010***	861	0.81	0.98 ± 0.065***	15.20 ± 2.204***	−0.07 ± 0.046	185	0.96
T, D	0.27 ± 0.025***	9.37 ± 0.602***	0.20 ± 0.007***	1231	0.86	0.88 ± 0.051***	17.70 ± 1.910***	−0.10 ± 0.024***	585	0.93
W, JA	0.37 ± 0.035***	6.22 ± 0.345***	0.22 ± 0.013***	551	0.83	1.11 ± 0.064***	6.20 ± 0.438***	−0.17 ± 0.039***	215	0.95
R, AR	0.45 ± 0.039***	4.18 ± 0.219***	0.27 ± 0.013***	473	0.89	0.61 ± 0.096***	3.97 ± 0.294***	0.20 ± 0.055***	192	0.96
B, RZ	0.36 ± 0.029***	5.57 ± 0.251***	0.21 ± 0.010***	727	0.86	0.53 ± 0.082***	8.11 ± 0.520***	0.12 ± 0.044**	308	0.93
L, MJ	0.46 ± 0.053***	4.54 ± 0.396***	0.24 ± 0.020***	291	0.88	1.00 ± 0.086***	4.17 ± 0.272***	−0.08 ± 0.056	130	0.97
F, ED	0.35 ± 0.027***	5.15 ± 0.226***	0.23 ± 0.008***	1038	0.88	0.89 ± 0.042***	5.82 ± 0.293***	−0.03 ± 0.024	445	0.93
N, AHC	0.39 ± 0.047***	3.49 ± 0.221***	0.31 ± 0.015***	441	0.88	0.75 ± 0.091***	2.85 ± 0.216***	0.21 ± 0.053***	79	0.98
T, LJ	0.49 ± 0.034***	4.75 ± 0.272***	0.19 ± 0.011***	640	0.86	0.94 ± 0.055***	5.08 ± 0.363***	0.00 ± 0.036	193	0.96
K, DV	0.34 ± 0.050***	5.75 ± 0.538***	0.24 ± 0.018***	267	0.82	0.52 ± 0.416	4.02 ± 0.655***	0.29 ± 0.237	41	0.95
S, WD	0.29 ± 0.085***	4.54 ± 0.527***	0.32 ± 0.032***	218	0.72	0.75 ± 0.230**	5.00 ± 0.666***	−0.00 ± 0.171	62	0.89
C, NJ	0.54 ± 0.038***	3.72 ± 0.248***	0.21 ± 0.013***	438	0.89	0.96 ± 0.107***	4.51 ± 0.469***	−0.01 ± 0.069	97	0.98
D, TJ	0.43 ± 0.046***	4.92 ± 0.387***	0.22 ± 0.017***	309	0.83	0.15 ± 0.261	7.51 ± 1.324***	0.33 ± 0.156*	60	0.89
P, VM	0.42 ± 0.047***	4.55 ± 0.402***	0.24 ± 0.016***	338	0.86	1.19 ± 0.118***	7.18 ± 1.554***	−0.23 ± 0.071**	72	0.96
H, CE	0.23 ± 0.044***	29.90 ± 11.070**	0.23 ± 0.014***	608	0.82	1.16 ± 0.086***	9.04 ± 0.897***	−0.20 ± 0.046***	318	0.92
T, MA	0.34 ± 0.053***	3.86 ± 0.372***	0.31 ± 0.019***	201	0.89	0.36 ± 0.599	2.56 ± 0.578***	0.44 ± 0.389	25	0.92
O, V	0.62 ± 0.081***	1.38 ± 0.218***	0.38 ± 0.027***	202	0.89	1.07 ± 0.053***	1.65 ± 0.078***	0.09 ± 0.031**	183	0.99
B, AL	0.42 ± 0.036***	3.00 ± 0.155***	0.29 ± 0.010***	642	0.91	1.06 ± 0.016***	3.65 ± 0.111***	0.01 ± 0.011	423	0.99
H, S	0.40 ± 0.025***	5.10 ± 0.210***	0.20 ± 0.007***	1215	0.85	0.97 ± 0.039***	5.81 ± 0.437***	−0.04 ± 0.023	225	0.97
H, JJ	0.54 ± 0.033***	5.38 ± 0.240***	0.17 ± 0.010***	639	0.89	0.95 ± 0.049***	8.07 ± 0.337***	−0.05 ± 0.027*	529	0.95
G, P	0.61 ± 0.036***	5.66 ± 0.345***	0.15 ± 0.011***	551	0.87	1.07 ± 0.034***	7.65 ± 0.400***	−0.11 ± 0.022***	196	0.99
Ave. ± Std. Dev.	0.42 ± 0.11	6.93 ± 8.55	0.23 ± 0.06	100	0.85 ± 0.04	0.86 ± 0.31	7.73 ± 3.82	−0.01 ± 0.18	94	0.95 ± 0.03

TABLE S17: Regression best-fit parameters for individual physics careers: dataset [B], 51-100.

	$c(t-1) < c_\times$					$c(t-1) \geq c_\times$				
Name	π_i	$\overline{\tau}_i$	ρ_i	N_i	Adj. R_i^2	π_i	$\overline{\tau}_i$	ρ_i	N_i	Adj. R_i^2
A, AG	0.13 ± 0.098	$5.95 \pm 1.223^{***}$	$0.25 \pm 0.024^{***}$	126	0.72	$0.80 \pm 0.079^{***}$	$6.21 \pm 0.867^{***}$	0.02 ± 0.045	96	0.93
A, MW	$0.87 \pm 0.168^{***}$	5.11 ± 2.910	0.11 ± 0.071	38	0.82	$0.95 \pm 0.214^{***}$	$4.02 \pm 1.445^{*}$	-0.02 ± 0.152	27	0.90
A, A	$0.49 \pm 0.133^{***}$	$3.91 \pm 1.149^{**}$	$0.32 \pm 0.037^{***}$	55	0.91	$0.74 \pm 0.107^{***}$	$3.44 \pm 0.391^{***}$	$0.18 \pm 0.055^{**}$	83	0.97
A, J	$1.30 \pm 0.400^{**}$	3.83 ± 6.372	0.22 ± 0.184	16	0.82	$0.92 \pm 0.174^{***}$	$1.41 \pm 0.357^{**}$	0.27 ± 0.148	17	0.96
A, BP	$1.12 \pm 0.334^{**}$	2.51 ± 2.345	$0.30 \pm 0.113^{*}$	26	0.82	$1.12 \pm 0.054^{***}$	$3.16 \pm 0.217^{***}$	-0.03 ± 0.039	87	0.99
A, NP	$0.99 \pm 0.266^{***}$	$1.69 \pm 0.575^{**}$	$0.31 \pm 0.067^{***}$	48	0.79	$0.98 \pm 0.075^{***}$	$2.36 \pm 0.185^{***}$	$0.11 \pm 0.042^{*}$	112	0.96
B, A	0.07 ± 0.158	8.28 ± 11.320	$0.32 \pm 0.037^{***}$	53	0.87	$1.06 \pm 0.063^{***}$	$1.76 \pm 0.157^{***}$	$0.13 \pm 0.035^{***}$	73	0.98
B, DR	$0.73 \pm 0.130^{***}$	$2.75 \pm 0.650^{***}$	$0.23 \pm 0.037^{***}$	96	0.78	$0.99 \pm 0.076^{***}$	$2.82 \pm 0.252^{***}$	0.03 ± 0.047	123	0.93
B, M	$0.92 \pm 0.229^{***}$	$1.56 \pm 0.619^{*}$	$0.32 \pm 0.062^{***}$	68	0.84	$0.84 \pm 0.036^{***}$	$2.45 \pm 0.112^{***}$	$0.18 \pm 0.019^{***}$	297	0.98
B, BA	$-0.41 \pm 0.182^{*}$	$2.70 \pm 0.877^{**}$	$0.57 \pm 0.038^{***}$	79	0.86	$1.25 \pm 0.142^{***}$	$2.45 \pm 0.526^{***}$	0.03 ± 0.080	52	0.97
B, MD	$0.55 \pm 0.199^{**}$	$4.66 \pm 2.169^{*}$	$0.30 \pm 0.054^{***}$	33	0.80	-0.32 ± 0.727	34.20 ± 88.320	0.52 ± 0.398	14	0.83
B, BB	$0.52 \pm 0.149^{***}$	$3.77 \pm 0.996^{***}$	$0.27 \pm 0.041^{***}$	54	0.81	$0.83 \pm 0.093^{***}$	$3.21 \pm 0.354^{***}$	$0.15 \pm 0.068^{*}$	59	0.96
B, SK	0.32 ± 0.185	$1.88 \pm 0.416^{***}$	$0.43 \pm 0.042^{***}$	49	0.83	$1.12 \pm 0.118^{***}$	$2.59 \pm 0.365^{***}$	0.01 ± 0.063	49	0.97
B, D	$1.53 \pm 0.164^{***}$	$0.94 \pm 0.396^{*}$	$0.31 \pm 0.124^{*}$	12	0.96	$1.10 \pm 0.063^{***}$	$3.16 \pm 0.341^{***}$	-0.01 ± 0.049	40	0.99
B, M	0.18 ± 0.760	-0.87 ± 0.520	0.19 ± 0.262	14	0.81	$1.18 \pm 0.130^{***}$	$1.82 \pm 0.277^{***}$	0.07 ± 0.089	29	0.98
B, J	0.27 ± 0.194	$3.23 \pm 1.518^{*}$	$0.45 \pm 0.054^{***}$	25	0.89	$0.70 \pm 0.179^{**}$	$4.48 \pm 1.630^{*}$	0.16 ± 0.096	20	0.96
B, R	$1.58 \pm 0.180^{***}$	$1.56 \pm 0.192^{***}$	$0.24 \pm 0.071^{**}$	48	0.89	$0.73 \pm 0.143^{***}$	$3.94 \pm 0.804^{***}$	0.24 ± 0.145	27	0.98
C, I	$1.72 \pm 0.250^{***}$	$1.18 \pm 0.328^{**}$	$0.19 \pm 0.067^{**}$	27	0.90	$0.97 \pm 0.076^{***}$	$2.26 \pm 0.181^{***}$	$0.14 \pm 0.056^{*}$	59	0.99
C, AL	$0.57 \pm 0.141^{***}$	$2.31 \pm 0.776^{**}$	$0.32 \pm 0.035^{***}$	88	0.89	$1.00 \pm 0.044^{***}$	$2.02 \pm 0.136^{***}$	$0.13 \pm 0.023^{***}$	203	0.97
C, NJ	$0.98 \pm 0.181^{***}$	$2.25 \pm 0.616^{***}$	$0.22 \pm 0.049^{***}$	66	0.83	$0.85 \pm 0.071^{***}$	$2.45 \pm 0.174^{***}$	$0.19 \pm 0.041^{***}$	110	0.97
D, AJ	$0.70 \pm 0.211^{**}$	$1.94 \pm 0.576^{**}$	$0.31 \pm 0.066^{***}$	37	0.80	$1.11 \pm 0.145^{***}$	$2.22 \pm 0.418^{***}$	0.08 ± 0.086	27	0.98
D, C	$0.56 \pm 0.227^{*}$	5.94 ± 7.898	$0.28 \pm 0.074^{***}$	53	0.74	$0.92 \pm 0.135^{***}$	$1.62 \pm 0.235^{***}$	$0.24 \pm 0.088^{**}$	46	0.96
D, M	$0.56 \pm 0.243^{*}$	2.94 ± 3.133	$0.36 \pm 0.083^{***}$	43	0.77	$1.11 \pm 0.071^{***}$	$2.56 \pm 0.225^{***}$	0.04 ± 0.043	83	0.98
D, RD	$0.88 \pm 0.309^{**}$	5.23 ± 5.974	0.14 ± 0.072	25	0.79	$1.28 \pm 0.071^{***}$	$5.69 \pm 0.827^{***}$	$-0.18 \pm 0.039^{***}$	56	1.00
D, R	0.32 ± 0.213	2.61 ± 1.679	$0.40 \pm 0.061^{***}$	41	0.81	$0.91 \pm 0.094^{***}$	$2.55 \pm 0.210^{***}$	0.10 ± 0.053	79	0.96
D, MVG	-1.09 ± 1.282	-0.87 ± 0.417	0.64 ± 0.295	11	0.87	$1.15 \pm 0.276^{***}$	$1.74 \pm 0.374^{***}$	0.11 ± 0.159	19	0.98
E, DA	$0.98 \pm 0.159^{***}$	$2.14 \pm 0.426^{***}$	$0.21 \pm 0.052^{***}$	42	0.89	$1.12 \pm 0.116^{***}$	$2.00 \pm 0.224^{***}$	0.07 ± 0.063	60	0.94
E, H	0.00 ± 0.356	-2.57 ± 2.928	$0.36 \pm 0.133^{*}$	26	0.76	$0.93 \pm 0.129^{***}$	$2.24 \pm 0.333^{***}$	0.12 ± 0.073	45	0.97
F, A	$0.41 \pm 0.153^{**}$	$2.87 \pm 0.734^{***}$	$0.33 \pm 0.033^{***}$	73	0.83	$1.03 \pm 0.142^{***}$	$3.42 \pm 0.428^{***}$	0.04 ± 0.067	53	0.95
F, F	0.40 ± 0.203	$1.91 \pm 0.362^{***}$	$0.52 \pm 0.056^{***}$	55	0.91	$0.80 \pm 0.159^{***}$	$2.34 \pm 0.281^{***}$	0.19 ± 0.106	50	0.97
F, GA	0.42 ± 0.224	6.86 ± 9.138	$0.27 \pm 0.071^{***}$	44	0.76	$1.21 \pm 0.159^{***}$	$2.12 \pm 0.348^{***}$	-0.01 ± 0.067	54	0.94
F, DP	$0.88 \pm 0.206^{***}$	1.50 ± 1.087	$0.32 \pm 0.071^{***}$	50	0.90	$1.06 \pm 0.033^{***}$	$3.73 \pm 0.261^{***}$	0.00 ± 0.016	280	0.98
G, VM	-0.20 ± 0.224	$2.32 \pm 0.507^{***}$	$0.66 \pm 0.059^{***}$	53	0.82	$1.30 \pm 0.188^{***}$	$4.52 \pm 1.468^{**}$	-0.16 ± 0.155	33	0.96
G, ML	$0.78 \pm 0.245^{**}$	10.80 ± 41.210	$0.27 \pm 0.088^{**}$	18	0.94	$1.23 \pm 0.099^{***}$	$1.98 \pm 0.209^{***}$	0.01 ± 0.049	55	0.99
G, M	$1.51 \pm 0.233^{***}$	$1.96 \pm 0.663^{**}$	0.05 ± 0.070	21	0.84	$1.34 \pm 0.146^{***}$	$2.39 \pm 0.433^{***}$	-0.06 ± 0.095	26	0.99
G, GH	0.27 ± 0.195	$1.55 \pm 0.312^{***}$	$0.51 \pm 0.041^{***}$	71	0.87	$0.93 \pm 0.067^{***}$	$3.79 \pm 0.214^{***}$	0.06 ± 0.040	172	0.97
H, H	$0.82 \pm 0.252^{**}$	2.36 ± 1.285	$0.23 \pm 0.061^{***}$	42	0.82	$0.91 \pm 0.053^{***}$	$2.04 \pm 0.110^{***}$	$0.17 \pm 0.029^{***}$	137	0.98
H, F	$0.51 \pm 0.213^{*}$	6.45 ± 8.107	$0.24 \pm 0.052^{***}$	48	0.78	$1.11 \pm 0.092^{***}$	$2.79 \pm 0.314^{***}$	-0.02 ± 0.044	86	0.95
H, M	-0.02 ± 0.329	-7.76 ± 9.305	0.02 ± 0.126	14	0.21	-0.06 ± 0.335	$6.45 \pm 2.224^{*}$	0.44 ± 0.230	13	0.74
H, ER	0.24 ± 0.226	$1.58 \pm 0.603^{*}$	$0.61 \pm 0.070^{***}$	19	0.92	$1.26 \pm 0.201^{***}$	$1.38 \pm 0.261^{***}$	0.08 ± 0.112	22	0.97
I, A	0.72 ± 0.431	3.44 ± 5.391	$0.35 \pm 0.104^{**}$	13	0.93	$1.19 \pm 0.270^{***}$	$1.82 \pm 0.414^{***}$	0.06 ± 0.132	17	0.95
I, MF	$0.67 \pm 0.200^{**}$	$2.45 \pm 0.947^{*}$	$0.38 \pm 0.066^{***}$	39	0.83	$1.23 \pm 0.050^{***}$	$2.34 \pm 0.243^{***}$	0.00 ± 0.029	55	0.99
J, P	0.51 ± 0.416	1.32 ± 0.973	$0.57 \pm 0.122^{***}$	19	0.87	$0.90 \pm 0.138^{***}$	$1.79 \pm 0.214^{***}$	$0.22 \pm 0.089^{*}$	38	0.98
J, E	0.35 ± 0.290	4.59 ± 5.949	$0.38 \pm 0.076^{***}$	29	0.82	$0.82 \pm 0.077^{***}$	$2.24 \pm 0.164^{***}$	$0.21 \pm 0.052^{***}$	93	0.97
J, AN	0.35 ± 0.213	2.65 ± 1.831	$0.37 \pm 0.073^{***}$	37	0.79	$0.81 \pm 0.129^{***}$	$3.00 \pm 0.626^{***}$	$0.13 \pm 0.066^{*}$	38	0.95
K, E	0.06 ± 0.302	$1.19 \pm 0.353^{**}$	$0.57 \pm 0.069^{***}$	28	0.89	$1.03 \pm 0.075^{***}$	$2.45 \pm 0.237^{***}$	$0.10 \pm 0.047^{*}$	94	0.97
K, HG	$0.59 \pm 0.133^{***}$	$1.86 \pm 0.306^{***}$	$0.34 \pm 0.032^{***}$	83	0.82	$0.85 \pm 0.109^{***}$	$3.94 \pm 0.641^{***}$	0.06 ± 0.061	59	0.94
K, J	0.49 ± 0.676	$-0.71 \pm 0.315^{*}$	0.06 ± 0.176	28	0.69	$0.98 \pm 0.062^{***}$	$2.86 \pm 0.295^{***}$	0.06 ± 0.037	60	0.99
K, EA	-0.09 ± 0.182	9.60 ± 14.790	$0.42 \pm 0.059^{***}$	33	0.83	$0.97 \pm 0.327^{**}$	$1.83 \pm 0.366^{***}$	0.13 ± 0.171	19	0.95
K, I	$0.52 \pm 0.239^{*}$	$3.62 \pm 1.589^{*}$	$0.35 \pm 0.069^{***}$	24	0.79	$0.70 \pm 0.176^{***}$	$4.96 \pm 1.141^{***}$	0.18 ± 0.098	31	0.96
Ave. $\pm$ Std. Dev.	0.57 ± 0.41	3.17 ± 1.90	0.33 ± 0.11	55	0.83 ± 0.05	0.97 ± 0.18	2.94 ± 1.09	0.08 ± 0.11	72	0.97 ± 0.02

TABLE S18: Regression best-fit parameters for individual physics careers: dataset [C], 1-50.

	$c(t-1) < c_\times$					$c(t-1) \geq c_\times$				
Name	π_i	$\overline{\tau}_i$	ρ_i	N_i	Adj. R_i^2	π_i	$\overline{\tau}_i$	ρ_i	N_i	Adj. R_i^2
K, SM	0.76 ± 0.355	-1.88 ± 2.826	0.16 ± 0.153	13	0.92	$1.57 \pm 0.288^{***}$	$1.79 \pm 0.402^{***}$	-0.23 ± 0.142	24	0.97
K, AA	-0.18 ± 0.807	-1.95 ± 2.159	0.32 ± 0.249	14	0.56	$0.95 \pm 0.095^{***}$	$3.54 \pm 0.426^{***}$	0.08 ± 0.059	62	0.97
K, IN	0.01 ± 0.245	3.25 ± 1.793	$0.46 \pm 0.048^{***}$	61	0.81	$1.15 \pm 0.049^{***}$	$2.29 \pm 0.199^{***}$	0.02 ± 0.030	94	0.98
L, A	0.30 ± 0.264	3.46 ± 2.599	$0.38 \pm 0.088^{***}$	27	0.75	0.31 ± 0.209	$2.42 \pm 0.268^{***}$	$0.50 \pm 0.135^{**}$	26	0.97
L, LJ	1.02 ± 0.646	-1.01 ± 1.049	-0.13 ± 0.171	14	0.75	$1.19 \pm 0.059^{***}$	$2.83 \pm 0.237^{***}$	$-0.08 \pm 0.037^{*}$	49	0.99
L, RL	$0.68 \pm 0.115^{***}$	$2.90 \pm 0.573^{***}$	$0.24 \pm 0.030^{***}$	77	0.84	$0.76 \pm 0.082^{***}$	$5.33 \pm 0.622^{***}$	0.04 ± 0.040	126	0.93
L, BJ	$1.23 \pm 0.336^{**}$	3.05 ± 2.245	0.08 ± 0.106	26	0.67	$1.27 \pm 0.144^{***}$	$3.10 \pm 0.443^{***}$	-0.15 ± 0.090	39	0.97
L, J	$0.51 \pm 0.149^{**}$	$5.27 \pm 1.789^{**}$	$0.22 \pm 0.039^{***}$	83	0.77	$0.53 \pm 0.112^{***}$	$5.20 \pm 0.578^{***}$	$0.18 \pm 0.059^{**}$	134	0.89
L, Y	0.48 ± 0.320	12.70 ± 45.870	$0.28 \pm 0.088^{**}$	20	0.78	$1.05 \pm 0.150^{***}$	$3.78 \pm 0.874^{***}$	-0.01 ± 0.074	43	0.97
M, O	$0.71 \pm 0.190^{**}$	$3.48 \pm 0.882^{***}$	$0.32 \pm 0.070^{***}$	27	0.84	$-0.97 \pm 0.422^{*}$	$4.02 \pm 1.496^{*}$	$1.18 \pm 0.291^{**}$	16	0.91
M, V	0.35 ± 0.241	-1.22 ± 0.663	$0.23 \pm 0.072^{**}$	45	0.82	$0.97 \pm 0.078^{***}$	$1.46 \pm 0.135^{***}$	$0.17 \pm 0.036^{***}$	87	0.96
M, BA	-0.58 ± 0.309	8.03 ± 9.894	$0.57 \pm 0.064^{***}$	25	0.86	$1.27 \pm 0.213^{***}$	$2.64 \pm 1.034^{*}$	-0.05 ± 0.099	20	0.97
M, L	0.74 ± 1.157	-1.35 ± 1.878	0.18 ± 0.358	12	0.67	$1.27 \pm 0.107^{***}$	$2.09 \pm 0.271^{***}$	-0.07 ± 0.057	40	0.98
M, P	$1.41 \pm 0.341^{**}$	2.04 ± 1.097	0.17 ± 0.118	12	0.93	$1.10 \pm 0.149^{***}$	$1.60 \pm 0.206^{***}$	0.17 ± 0.082	30	0.98
M, D	$0.97 \pm 0.259^{**}$	2.40 ± 1.551	$0.35 \pm 0.087^{**}$	16	0.93	$1.03 \pm 0.104^{***}$	$1.78 \pm 0.184^{***}$	$0.16 \pm 0.057^{**}$	56	0.97
M, B	0.42 ± 0.461	$1.14 \pm 0.471^{*}$	$0.80 \pm 0.204^{**}$	10	0.92	1.29 ± 0.698	2.42 ± 0.990	-0.07 ± 0.556	7	0.98
M, E	$0.75 \pm 0.275^{**}$	4.54 ± 4.626	$0.19 \pm 0.070^{**}$	47	0.69	$1.04 \pm 0.232^{***}$	$3.11 \pm 0.896^{**}$	-0.02 ± 0.156	22	0.94
M, OI	0.08 ± 0.185	5.45 ± 3.319	$0.38 \pm 0.050^{***}$	50	0.82	$0.94 \pm 0.107^{***}$	$3.51 \pm 0.417^{***}$	0.02 ± 0.058	82	0.94
M, AE	$0.97 \pm 0.204^{***}$	$2.59 \pm 0.570^{***}$	$0.22 \pm 0.061^{***}$	66	0.85	$1.08 \pm 0.083^{***}$	$2.33 \pm 0.247^{***}$	0.06 ± 0.049	74	0.98
N, D	0.31 ± 0.202	2.80 ± 1.412	$0.40 \pm 0.044^{***}$	38	0.87	$0.95 \pm 0.088^{***}$	$1.93 \pm 0.156^{***}$	$0.16 \pm 0.045^{***}$	72	0.98
N, A	$0.99 \pm 0.441^{*}$	$2.88 \pm 1.090^{*}$	$0.32 \pm 0.099^{**}$	38	0.83	$0.43 \pm 0.107^{***}$	$4.91 \pm 0.848^{***}$	$0.34 \pm 0.056^{***}$	50	0.97
N, V	-0.24 ± 0.868	-1.13 ± 0.739	0.10 ± 0.131	8	0.78	$1.01 \pm 0.057^{***}$	$2.43 \pm 0.224^{***}$	$0.12 \pm 0.052^{*}$	33	1.00
N, Z	$0.85 \pm 0.127^{***}$	$1.64 \pm 0.276^{***}$	$0.25 \pm 0.034^{***}$	65	0.89	$0.96 \pm 0.061^{***}$	$3.91 \pm 0.388^{***}$	0.01 ± 0.028	101	0.96
O, AL	$0.79 \pm 0.158^{***}$	$3.19 \pm 1.325^{*}$	$0.21 \pm 0.060^{**}$	24	0.94	$0.88 \pm 0.116^{***}$	$2.06 \pm 0.210^{***}$	$0.17 \pm 0.067^{*}$	44	0.97
O, SB	$0.81 \pm 0.191^{***}$	$1.25 \pm 0.176^{***}$	$0.52 \pm 0.043^{***}$	44	0.90	$0.62 \pm 0.108^{***}$	$3.54 \pm 0.426^{***}$	$0.24 \pm 0.069^{**}$	44	0.96
P, N	$2.04 \pm 0.197^{***}$	$1.13 \pm 0.444^{*}$	$0.15 \pm 0.058^{*}$	37	0.93	$0.77 \pm 0.066^{***}$	$1.90 \pm 0.170^{***}$	$0.27 \pm 0.036^{***}$	107	0.98
P, NB	$0.67 \pm 0.179^{***}$	$6.20 \pm 1.975^{**}$	0.12 ± 0.068	37	0.80	$0.76 \pm 0.236^{**}$	$4.19 \pm 1.388^{**}$	0.03 ± 0.133	24	0.89
P, AT	$1.25 \pm 0.351^{**}$	$1.24 \pm 0.301^{***}$	$0.32 \pm 0.075^{***}$	23	0.86	$0.92 \pm 0.051^{***}$	$3.01 \pm 0.209^{***}$	$0.12 \pm 0.037^{**}$	75	0.99
P, MG	0.30 ± 0.169	$3.69 \pm 1.217^{**}$	$0.37 \pm 0.067^{***}$	24	0.87	$0.90 \pm 0.275^{**}$	$4.71 \pm 1.853^{*}$	-0.02 ± 0.197	25	0.89
P, A	$1.03 \pm 0.110^{***}$	$1.89 \pm 0.402^{***}$	$0.19 \pm 0.035^{***}$	65	0.90	$0.72 \pm 0.093^{***}$	$2.83 \pm 0.242^{***}$	$0.20 \pm 0.049^{***}$	87	0.96
P, F	-0.10 ± 0.405	$3.06 \pm 1.274^{*}$	$0.59 \pm 0.113^{***}$	27	0.80	$0.79 \pm 0.121^{***}$	$1.98 \pm 0.261^{***}$	$0.28 \pm 0.071^{***}$	58	0.97
P, S	0.08 ± 0.160	$2.18 \pm 0.650^{**}$	$0.44 \pm 0.044^{***}$	55	0.89	$0.93 \pm 0.101^{***}$	$1.55 \pm 0.104^{***}$	$0.21 \pm 0.058^{***}$	85	0.97
S, T	$0.38 \pm 0.125^{**}$	$2.44 \pm 0.376^{***}$	$0.34 \pm 0.028^{***}$	157	0.81	$0.85 \pm 0.046^{***}$	$3.94 \pm 0.176^{***}$	$0.06 \pm 0.023^{*}$	460	0.93
S, TR	0.32 ± 0.185	$2.48 \pm 0.769^{**}$	$0.35 \pm 0.045^{***}$	59	0.78	$0.90 \pm 0.090^{***}$	$4.08 \pm 0.521^{***}$	0.03 ± 0.042	88	0.94
S, D	0.37 ± 0.401	$-0.30 \pm 0.091^{**}$	-0.07 ± 0.128	14	0.95	$1.15 \pm 0.102^{***}$	$1.91 \pm 0.313^{***}$	0.08 ± 0.043	45	0.99
S, MD	$1.00 \pm 0.185^{***}$	$1.18 \pm 0.305^{***}$	$0.31 \pm 0.082^{***}$	25	0.89	$1.34 \pm 0.121^{***}$	$2.94 \pm 0.499^{***}$	$-0.21 \pm 0.076^{**}$	45	0.97
S, L	$0.83 \pm 0.283^{**}$	1.38 ± 0.708	$0.42 \pm 0.087^{***}$	20	0.89	0.24 ± 0.276	$2.39 \pm 0.737^{**}$	$0.56 \pm 0.141^{***}$	20	0.97
S, OG	$0.85 \pm 0.207^{***}$	3.67 ± 2.328	$0.19 \pm 0.059^{**}$	35	0.81	$0.83 \pm 0.130^{***}$	$6.05 \pm 1.204^{***}$	0.00 ± 0.061	57	0.94
S, GT	0.07 ± 0.202	$2.69 \pm 0.755^{**}$	$0.54 \pm 0.050^{***}$	37	0.82	0.34 ± 0.365	$2.81 \pm 0.706^{***}$	$0.45 \pm 0.177^{*}$	24	0.95
S, M	$0.76 \pm 0.192^{***}$	$2.11 \pm 1.036^{*}$	$0.34 \pm 0.059^{***}$	51	0.81	$0.84 \pm 0.086^{***}$	$2.25 \pm 0.211^{***}$	$0.11 \pm 0.043^{*}$	116	0.91
S, AM	$0.73 \pm 0.202^{***}$	3.24 ± 2.220	$0.27 \pm 0.052^{***}$	55	0.80	$1.06 \pm 0.060^{***}$	$2.99 \pm 0.233^{***}$	-0.01 ± 0.029	148	0.95
T, N	$1.89 \pm 0.385^{***}$	$0.64 \pm 0.205^{*}$	0.21 ± 0.134	14	0.96	$0.98 \pm 0.082^{***}$	$1.31 \pm 0.116^{***}$	$0.19 \pm 0.068^{*}$	26	0.99
T, AP	$0.56 \pm 0.236^{*}$	4.48 ± 2.302	$0.17 \pm 0.065^{*}$	12	0.70	$0.62 \pm 0.262^{*}$	5.83 ± 4.803	0.06 ± 0.245	10	0.90
T, H	0.23 ± 0.243	3.84 ± 2.940	$0.42 \pm 0.085^{***}$	32	0.78	$1.11 \pm 0.214^{***}$	$2.43 \pm 0.530^{***}$	0.01 ± 0.153	24	0.95
V, O	0.53 ± 0.289	$1.63 \pm 0.744^{*}$	$0.45 \pm 0.098^{***}$	28	0.72	$0.99 \pm 0.128^{***}$	$3.73 \pm 0.558^{***}$	-0.00 ± 0.066	54	0.96
V, MG	$0.40 \pm 0.171^{*}$	$1.61 \pm 0.372^{***}$	$0.45 \pm 0.051^{***}$	41	0.88	$0.94 \pm 0.080^{***}$	$2.60 \pm 0.241^{***}$	0.07 ± 0.045	66	0.97
W, RH	$0.76 \pm 0.132^{***}$	$2.93 \pm 1.310^{*}$	$0.31 \pm 0.040^{***}$	44	0.93	$0.90 \pm 0.069^{***}$	$2.85 \pm 0.304^{***}$	$0.12 \pm 0.030^{***}$	98	0.98
W, M	$0.92 \pm 0.276^{**}$	9.33 ± 25.980	$0.20 \pm 0.095^{*}$	20	0.85	$0.62 \pm 0.179^{**}$	5.99 ± 3.527	0.22 ± 0.108	23	0.98
Y, A	$1.58 \pm 0.562^{*}$	0.74 ± 0.850	0.49 ± 0.247	11	0.85	$1.28 \pm 0.082^{***}$	$1.97 \pm 0.226^{***}$	-0.03 ± 0.049	32	0.99
Z, MW	$1.55 \pm 0.369^{**}$	1.32 ± 0.830	0.18 ± 0.116	15	0.95	$0.78 \pm 0.068^{***}$	$1.63 \pm 0.120^{***}$	$0.28 \pm 0.045^{***}$	69	0.99
Ave. $\pm$ Std. Dev.	0.57 ± 0.41	3.17 ± 1.90	0.33 ± 0.11	55	0.83 ± 0.05	0.97 ± 0.18	2.94 ± 1.09	0.08 ± 0.11	72	0.97 ± 0.02

TABLE S19: Regression best-fit parameters for individual physics careers: dataset [C], 51-100.

Name	$c(t-1) < c_{\times}$					$c(t-1) \geq c_{\times}$				
	π_i	$\overline{\tau}_i$	ρ_i	N_i	Adj. R_i^2	π_i	$\overline{\tau}_i$	ρ_i	N_i	Adj. R_i^2
G, H	$0.65 \pm 0.020^{***}$	$4.89 \pm 0.159^{***}$	$0.16 \pm 0.008^{***}$	1135	0.93	$1.24 \pm 0.032^{***}$	$10.10 \pm 0.402^{***}$	$-0.26 \pm 0.018^{***}$	808	0.97
B, D	$0.32 \pm 0.018^{***}$	$4.64 \pm 0.148^{***}$	$0.28 \pm 0.006^{***}$	2160	0.92	$0.62 \pm 0.047^{***}$	$5.92 \pm 0.250^{***}$	$0.15 \pm 0.026^{***}$	680	0.95
M, T	$0.22 \pm 0.028^{***}$	$7.51 \pm 0.583^{***}$	$0.31 \pm 0.010^{***}$	988	0.91	$0.97 \pm 0.020^{***}$	$5.01 \pm 0.136^{***}$	-0.02 ± 0.012	1124	0.97
S, PA	$0.39 \pm 0.022^{***}$	$5.28 \pm 0.202^{***}$	$0.24 \pm 0.008^{***}$	1802	0.90	$1.08 \pm 0.020^{***}$	$5.13 \pm 0.123^{***}$	$-0.11 \pm 0.012^{***}$	1105	0.97
T, R	$0.33 \pm 0.026^{***}$	$4.03 \pm 0.151^{***}$	$0.31 \pm 0.009^{***}$	1259	0.91	$0.91 \pm 0.022^{***}$	$4.40 \pm 0.090^{***}$	0.01 ± 0.013	990	0.98
L, P	$0.19 \pm 0.025^{***}$	$4.73 \pm 0.262^{***}$	$0.35 \pm 0.008^{***}$	1105	0.91	$1.33 \pm 0.035^{***}$	$6.42 \pm 0.373^{***}$	$-0.26 \pm 0.018^{***}$	516	0.98
A, R	$0.46 \pm 0.028^{***}$	$2.79 \pm 0.135^{***}$	$0.31 \pm 0.010^{***}$	556	0.95	$1.20 \pm 0.044^{***}$	$4.93 \pm 0.206^{***}$	$-0.16 \pm 0.025^{***}$	422	0.98
W, H	$0.36 \pm 0.026^{***}$	$3.24 \pm 0.119^{***}$	$0.32 \pm 0.010^{***}$	965	0.92	$0.94 \pm 0.024^{***}$	$4.64 \pm 0.101^{***}$	-0.01 ± 0.014	846	0.98
K, M	$0.24 \pm 0.021^{***}$	$5.78 \pm 0.286^{***}$	$0.31 \pm 0.007^{***}$	1752	0.92	$0.94 \pm 0.021^{***}$	$5.87 \pm 0.149^{***}$	-0.02 ± 0.011	1687	0.97
R, GM	$0.35 \pm 0.025^{***}$	$7.22 \pm 0.455^{***}$	$0.26 \pm 0.009^{***}$	982	0.91	$0.95 \pm 0.051^{***}$	$8.34 \pm 0.632^{***}$	$-0.08 \pm 0.030^{**}$	341	0.97
K, M	$0.36 \pm 0.035^{***}$	$3.19 \pm 0.148^{***}$	$0.38 \pm 0.014^{***}$	404	0.94	$1.05 \pm 0.033^{***}$	$4.52 \pm 0.167^{***}$	-0.04 ± 0.022	235	0.99
R, RG	$0.37 \pm 0.018^{***}$	$4.05 \pm 0.153^{***}$	$0.27 \pm 0.006^{***}$	1516	0.93	$1.33 \pm 0.019^{***}$	$4.70 \pm 0.146^{***}$	$-0.22 \pm 0.011^{***}$	684	0.98
R, JG	$0.64 \pm 0.039^{***}$	$4.34 \pm 0.283^{***}$	$0.18 \pm 0.016^{***}$	300	0.93	$1.37 \pm 0.033^{***}$	$12.10 \pm 0.807^{***}$	$-0.43 \pm 0.023^{***}$	176	0.99
E, RM	$0.22 \pm 0.023^{***}$	$13.40 \pm 1.454^{***}$	$0.29 \pm 0.008^{***}$	1674	0.89	$0.93 \pm 0.024^{***}$	$11.00 \pm 0.543^{***}$	$-0.06 \pm 0.013^{***}$	1522	0.96
O, PH	$0.85 \pm 0.035^{***}$	$2.52 \pm 0.124^{***}$	$0.13 \pm 0.012^{***}$	461	0.92	$1.25 \pm 0.013^{***}$	$5.87 \pm 0.120^{***}$	$-0.22 \pm 0.010^{***}$	304	1.00
H, T	$0.21 \pm 0.023^{***}$	$5.40 \pm 0.300^{***}$	$0.34 \pm 0.008^{***}$	1553	0.89	$0.80 \pm 0.036^{***}$	$4.60 \pm 0.192^{***}$	$0.10 \pm 0.021^{***}$	535	0.98
G, JL	$0.39 \pm 0.014^{***}$	$4.67 \pm 0.105^{***}$	$0.24 \pm 0.005^{***}$	2941	0.93	$1.04 \pm 0.015^{***}$	$6.80 \pm 0.112^{***}$	$-0.09 \pm 0.008^{***}$	2308	0.98
P, S	$0.56 \pm 0.021^{***}$	$3.32 \pm 0.099^{***}$	$0.22 \pm 0.008^{***}$	1025	0.93	$1.09 \pm 0.033^{***}$	$4.61 \pm 0.157^{***}$	$-0.11 \pm 0.020^{***}$	351	0.98
B, MS	$0.41 \pm 0.015^{***}$	$4.57 \pm 0.107^{***}$	$0.23 \pm 0.005^{***}$	2846	0.93	$1.05 \pm 0.014^{***}$	$6.50 \pm 0.104^{***}$	$-0.09 \pm 0.008^{***}$	2238	0.98
B, AJ	$0.49 \pm 0.031^{***}$	$3.96 \pm 0.196^{***}$	$0.24 \pm 0.011^{***}$	728	0.90	$1.32 \pm 0.033^{***}$	$4.25 \pm 0.171^{***}$	$-0.23 \pm 0.020^{***}$	281	0.98
H, RO	$0.40 \pm 0.034^{***}$	$18.60 \pm 3.863^{***}$	$0.22 \pm 0.012^{***}$	1067	0.86	$1.21 \pm 0.052^{***}$	$21.80 \pm 4.729^{***}$	$-0.27 \pm 0.032^{***}$	518	0.96
P, HRB	$0.34 \pm 0.031^{***}$	$5.50 \pm 0.349^{***}$	$0.27 \pm 0.011^{***}$	760	0.90	$1.14 \pm 0.016^{***}$	$4.78 \pm 0.116^{***}$	$-0.12 \pm 0.011^{***}$	557	0.99
T, R	$0.46 \pm 0.045^{***}$	$4.03 \pm 0.301^{***}$	$0.29 \pm 0.018^{***}$	432	0.91	$0.70 \pm 0.042^{***}$	$4.87 \pm 0.140^{***}$	$0.13 \pm 0.027^{***}$	447	0.98
W, RA	$0.29 \pm 0.035^{***}$	$3.53 \pm 0.227^{***}$	$0.37 \pm 0.012^{***}$	535	0.93	$0.95 \pm 0.061^{***}$	$3.32 \pm 0.157^{***}$	0.04 ± 0.038	162	0.99
L, AJ	$0.17 \pm 0.026^{***}$	$12.80 \pm 1.191^{***}$	$0.33 \pm 0.010^{***}$	1235	0.88	$0.73 \pm 0.071^{***}$	$9.91 \pm 1.108^{***}$	$0.11 \pm 0.046^{*}$	210	0.98
J, R	$0.19 \pm 0.026^{***}$	$7.03 \pm 0.527^{***}$	$0.33 \pm 0.010^{***}$	891	0.90	0.13 ± 0.210	$6.71 \pm 0.812^{***}$	$0.44 \pm 0.121^{***}$	110	0.95
W, M	$0.41 \pm 0.030^{***}$	$5.26 \pm 0.292^{***}$	$0.26 \pm 0.011^{***}$	854	0.91	$1.08 \pm 0.030^{***}$	$5.86 \pm 0.154^{***}$	$-0.12 \pm 0.017^{***}$	776	0.98
F, E	$0.31 \pm 0.022^{***}$	$6.81 \pm 0.364^{***}$	$0.26 \pm 0.008^{***}$	1278	0.92	$0.85 \pm 0.047^{***}$	$9.98 \pm 0.551^{***}$	-0.04 ± 0.025	695	0.95
K, MW	$0.33 \pm 0.020^{***}$	$4.88 \pm 0.188^{***}$	$0.28 \pm 0.007^{***}$	1384	0.93	$1.09 \pm 0.015^{***}$	$7.04 \pm 0.188^{***}$	$-0.13 \pm 0.009^{***}$	996	0.98
B, DD	$0.49 \pm 0.025^{***}$	$4.20 \pm 0.147^{***}$	$0.24 \pm 0.010^{***}$	724	0.94	$1.02 \pm 0.057^{***}$	$6.93 \pm 0.335^{***}$	$-0.14 \pm 0.035^{***}$	235	0.97
F, RA	$0.28 \pm 0.021^{***}$	$9.80 \pm 0.736^{***}$	$0.26 \pm 0.007^{***}$	1584	0.89	$0.70 \pm 0.065^{***}$	$6.75 \pm 0.421^{***}$	$0.09 \pm 0.035^{**}$	492	0.95
K, N	$0.62 \pm 0.022^{***}$	$3.69 \pm 0.117^{***}$	$0.20 \pm 0.008^{***}$	1010	0.93	$0.90 \pm 0.046^{***}$	$5.88 \pm 0.295^{***}$	0.00 ± 0.029	326	0.97
N, JR	$0.32 \pm 0.025^{***}$	$3.96 \pm 0.158^{***}$	$0.31 \pm 0.009^{***}$	1147	0.92	$1.21 \pm 0.058^{***}$	$4.91 \pm 0.228^{***}$	$-0.18 \pm 0.032^{***}$	468	0.96
C, P	$0.25 \pm 0.017^{***}$	$12.30 \pm 0.915^{***}$	$0.24 \pm 0.006^{***}$	2988	0.89	$0.97 \pm 0.028^{***}$	$13.20 \pm 0.749^{***}$	$-0.10 \pm 0.014^{***}$	1478	0.96
V, HE	$0.40 \pm 0.018^{***}$	$3.76 \pm 0.102^{***}$	$0.26 \pm 0.006^{***}$	1893	0.92	$0.89 \pm 0.041^{***}$	$4.92 \pm 0.153^{***}$	0.01 ± 0.023	799	0.97
B, G	$0.27 \pm 0.019^{***}$	$7.94 \pm 0.423^{***}$	$0.25 \pm 0.007^{***}$	1899	0.89	$0.97 \pm 0.022^{***}$	$6.84 \pm 0.196^{***}$	$-0.07 \pm 0.013^{***}$	1100	0.97
E, A	$0.51 \pm 0.037^{***}$	$4.41 \pm 0.315^{***}$	$0.26 \pm 0.015^{***}$	459	0.92	$0.96 \pm 0.028^{***}$	$4.50 \pm 0.109^{***}$	0.00 ± 0.018	482	0.99
L, HF	$0.45 \pm 0.017^{***}$	$3.05 \pm 0.072^{***}$	$0.27 \pm 0.006^{***}$	1492	0.94	$0.72 \pm 0.074^{***}$	$4.15 \pm 0.147^{***}$	$0.13 \pm 0.042^{**}$	280	0.98
H, HR	$0.25 \pm 0.031^{***}$	$23.80 \pm 5.745^{***}$	$0.25 \pm 0.011^{***}$	1002	0.88	$1.12 \pm 0.058^{***}$	$11.30 \pm 1.094^{***}$	$-0.16 \pm 0.036^{***}$	305	0.97
G, MR	$0.44 \pm 0.023^{***}$	$4.31 \pm 0.181^{***}$	$0.24 \pm 0.008^{***}$	1330	0.90	$1.10 \pm 0.014^{***}$	$4.49 \pm 0.107^{***}$	$-0.10 \pm 0.010^{***}$	1016	0.98
L, UK	$0.54 \pm 0.036^{***}$	$5.09 \pm 0.297^{***}$	$0.21 \pm 0.014^{***}$	409	0.93	$1.09 \pm 0.025^{***}$	$6.40 \pm 0.255^{***}$	$-0.12 \pm 0.019^{***}$	216	0.99
N, K	$0.33 \pm 0.021^{***}$	$4.94 \pm 0.202^{***}$	$0.29 \pm 0.007^{***}$	967	0.95	$0.98 \pm 0.054^{***}$	$7.69 \pm 0.315^{***}$	$-0.10 \pm 0.028^{***}$	634	0.97
S, S	$0.61 \pm 0.028^{***}$	$4.79 \pm 0.201^{***}$	$0.17 \pm 0.010^{***}$	636	0.92	$1.09 \pm 0.042^{***}$	$7.96 \pm 0.388^{***}$	$-0.17 \pm 0.028^{***}$	221	0.98
S, T	$0.47 \pm 0.025^{***}$	$4.64 \pm 0.180^{***}$	$0.22 \pm 0.009^{***}$	1059	0.91	$0.79 \pm 0.062^{***}$	$6.48 \pm 0.386^{***}$	0.04 ± 0.038	242	0.97
G, HM	$0.46 \pm 0.020^{***}$	$4.27 \pm 0.120^{***}$	$0.24 \pm 0.007^{***}$	1276	0.92	$1.25 \pm 0.055^{***}$	$3.03 \pm 0.152^{***}$	$-0.12 \pm 0.036^{**}$	172	0.99
D, JE	$0.40 \pm 0.025^{***}$	$3.29 \pm 0.123^{***}$	$0.29 \pm 0.009^{***}$	843	0.93	$1.14 \pm 0.042^{***}$	$4.41 \pm 0.153^{***}$	$-0.15 \pm 0.025^{***}$	343	0.98
T, S	$0.34 \pm 0.031^{***}$	$3.39 \pm 0.215^{***}$	$0.34 \pm 0.012^{***}$	625	0.93	$1.05 \pm 0.041^{***}$	$3.88 \pm 0.150^{***}$	$-0.06 \pm 0.025^{*}$	347	0.98
P, M	$0.24 \pm 0.034^{***}$	$6.02 \pm 0.445^{***}$	$0.34 \pm 0.013^{***}$	423	0.93	$0.76 \pm 0.099^{***}$	$4.66 \pm 0.379^{***}$	0.08 ± 0.058	89	0.97
P, I	$0.44 \pm 0.016^{***}$	$3.65 \pm 0.090^{***}$	$0.24 \pm 0.005^{***}$	1889	0.92	$0.69 \pm 0.049^{***}$	$3.77 \pm 0.108^{***}$	$0.15 \pm 0.028^{***}$	309	0.98
K, SJ	$0.20 \pm 0.025^{***}$	$22.90 \pm 4.877^{***}$	$0.29 \pm 0.009^{***}$	1265	0.90	$0.90 \pm 0.041^{***}$	$11.40 \pm 0.880^{***}$	-0.02 ± 0.022	769	0.97
Ave. $\pm$ Std. Dev.	0.40 ± 0.14	6.64 ± 6.24	0.26 ± 0.05	100	0.91 ± 0.03	0.99 ± 0.22	9.55 ± 26.30	-0.06 ± 0.14	99	0.97 ± 0.01

TABLE S20: Regression best-fit parameters for individual biology careers: dataset [D], 1-50.

	$c(t-1) < c_{\times}$					$c(t-1) \geq c_{\times}$				
Name	π_i	$\overline{\tau}_i$	ρ_i	N_i	Adj. R_i^2	π_i	$\overline{\tau}_i$	ρ_i	N_i	Adj. R_i^2
B, JM	$0.45 \pm 0.017^{***}$	$3.38 \pm 0.078^{***}$	$0.26 \pm 0.006^{***}$	2037	0.92	$1.06 \pm 0.028^{***}$	$4.94 \pm 0.122^{***}$	$-0.08 \pm 0.017^{***}$	1112	0.97
B, D	$0.46 \pm 0.019^{***}$	$5.31 \pm 0.173^{***}$	$0.22 \pm 0.007^{***}$	1526	0.92	$1.02 \pm 0.050^{***}$	$8.58 \pm 0.690^{***}$	$-0.10 \pm 0.031^{**}$	359	0.97
S, U	$0.47 \pm 0.031^{***}$	$3.44 \pm 0.159^{***}$	$0.29 \pm 0.012^{***}$	487	0.93	$1.12 \pm 0.052^{***}$	$3.99 \pm 0.154^{***}$	$-0.10 \pm 0.033^{**}$	203	0.99
H, DS	$0.52 \pm 0.042^{***}$	$4.38 \pm 0.281^{***}$	$0.27 \pm 0.018^{***}$	247	0.93	$0.76 \pm 0.236^{**}$	$4.98 \pm 0.686^{***}$	0.19 ± 0.149	43	0.98
L, E	$0.63 \pm 0.024^{***}$	$3.49 \pm 0.102^{***}$	$0.19 \pm 0.009^{***}$	1070	0.90	$1.07 \pm 0.032^{***}$	$5.52 \pm 0.158^{***}$	$-0.13 \pm 0.023^{***}$	414	0.98
B, D	$0.13 \pm 0.032^{***}$	$23.40 \pm 5.693^{***}$	$0.33 \pm 0.013^{***}$	1058	0.86	$1.07 \pm 0.045^{***}$	$11.20 \pm 0.778^{***}$	$-0.14 \pm 0.025^{***}$	1060	0.95
S, TA	$0.26 \pm 0.022^{***}$	$26.80 \pm 4.845^{***}$	$0.25 \pm 0.008^{***}$	2041	0.87	$1.15 \pm 0.038^{***}$	$15.70 \pm 1.622^{***}$	$-0.20 \pm 0.019^{***}$	1199	0.96
N, J	$0.46 \pm 0.034^{***}$	$4.21 \pm 0.202^{***}$	$0.26 \pm 0.013^{***}$	562	0.91	$1.27 \pm 0.049^{***}$	$8.51 \pm 0.399^{***}$	$-0.33 \pm 0.031^{***}$	378	0.97
K, R	$0.12 \pm 0.050^{*}$	$6.34 \pm 0.734^{***}$	$0.40 \pm 0.022^{***}$	385	0.86	$0.84 \pm 0.157^{***}$	268.00 ± 1594.000	-0.03 ± 0.103	106	0.96
N, P	$0.35 \pm 0.027^{***}$	$11.90 \pm 1.232^{***}$	$0.25 \pm 0.010^{***}$	1184	0.87	$1.14 \pm 0.053^{***}$	$13.10 \pm 1.266^{***}$	$-0.21 \pm 0.032^{***}$	508	0.96
V, A	$0.46 \pm 0.026^{***}$	$4.16 \pm 0.183^{***}$	$0.26 \pm 0.010^{***}$	736	0.94	$0.74 \pm 0.050^{***}$	$5.02 \pm 0.180^{***}$	$0.10 \pm 0.029^{**}$	335	0.98
G, B	$0.38 \pm 0.021^{***}$	$5.88 \pm 0.227^{***}$	$0.23 \pm 0.007^{***}$	1322	0.90	$1.16 \pm 0.026^{***}$	$7.02 \pm 0.367^{***}$	$-0.18 \pm 0.018^{***}$	283	0.99
G, CS	$0.35 \pm 0.017^{***}$	$4.85 \pm 0.120^{***}$	$0.26 \pm 0.006^{***}$	1634	0.94	$0.99 \pm 0.032^{***}$	$4.86 \pm 0.118^{***}$	$-0.04 \pm 0.018^{*}$	614	0.98
S, JA	$0.34 \pm 0.028^{***}$	$5.02 \pm 0.271^{***}$	$0.29 \pm 0.011^{***}$	772	0.91	$0.87 \pm 0.050^{***}$	$5.38 \pm 0.293^{***}$	-0.00 ± 0.032	245	0.98
J, AJ	$0.70 \pm 0.025^{***}$	$2.82 \pm 0.096^{***}$	$0.20 \pm 0.009^{***}$	1011	0.91	$1.24 \pm 0.027^{***}$	$4.18 \pm 0.119^{***}$	$-0.17 \pm 0.017^{***}$	377	0.99
J, TM	$0.43 \pm 0.024^{***}$	$4.16 \pm 0.199^{***}$	$0.27 \pm 0.008^{***}$	912	0.94	$0.80 \pm 0.036^{***}$	$6.61 \pm 0.222^{***}$	0.03 ± 0.020	677	0.98
G, DV	$0.29 \pm 0.023^{***}$	$4.28 \pm 0.166^{***}$	$0.34 \pm 0.009^{***}$	1216	0.92	$0.76 \pm 0.031^{***}$	$6.27 \pm 0.190^{***}$	$0.08 \pm 0.017^{***}$	1216	0.97
S, R	$0.49 \pm 0.025^{***}$	$3.93 \pm 0.161^{***}$	$0.24 \pm 0.008^{***}$	830	0.93	$0.67 \pm 0.062^{***}$	$7.33 \pm 0.529^{***}$	$0.12 \pm 0.039^{**}$	239	0.97
B, EH	$0.31 \pm 0.031^{***}$	$12.70 \pm 1.487^{***}$	$0.25 \pm 0.012^{***}$	788	0.87	$1.14 \pm 0.093^{***}$	$14.00 \pm 2.494^{***}$	$-0.20 \pm 0.057^{***}$	152	0.98
V, B	$0.18 \pm 0.023^{***}$	$46.60 \pm 16.840^{**}$	$0.29 \pm 0.008^{***}$	1707	0.90	$0.95 \pm 0.014^{***}$	$10.10 \pm 0.442^{***}$	$-0.03 \pm 0.009^{***}$	1589	0.98
S, BM	$0.37 \pm 0.024^{***}$	$5.51 \pm 0.259^{***}$	$0.28 \pm 0.008^{***}$	1068	0.94	$0.84 \pm 0.051^{***}$	$13.50 \pm 1.517^{***}$	-0.00 ± 0.029	369	0.98
H, L	$0.50 \pm 0.018^{***}$	$2.50 \pm 0.065^{***}$	$0.27 \pm 0.006^{***}$	1546	0.94	$1.24 \pm 0.055^{***}$	$2.93 \pm 0.125^{***}$	$-0.12 \pm 0.030^{***}$	347	0.98
G, L	$0.52 \pm 0.022^{***}$	$3.64 \pm 0.107^{***}$	$0.24 \pm 0.008^{***}$	1179	0.93	$1.07 \pm 0.060^{***}$	$6.09 \pm 0.263^{***}$	$-0.11 \pm 0.033^{***}$	482	0.97
C, MR	$0.53 \pm 0.033^{***}$	$2.80 \pm 0.134^{***}$	$0.28 \pm 0.012^{***}$	459	0.94	$1.06 \pm 0.058^{***}$	$4.82 \pm 0.251^{***}$	$-0.08 \pm 0.036^{*}$	200	0.98
M, J	$0.26 \pm 0.023^{***}$	$5.43 \pm 0.291^{***}$	$0.31 \pm 0.008^{***}$	1381	0.93	$1.06 \pm 0.031^{***}$	$6.65 \pm 0.252^{***}$	$-0.10 \pm 0.016^{***}$	1194	0.97
M, DA	$0.29 \pm 0.027^{***}$	$3.24 \pm 0.143^{***}$	$0.34 \pm 0.009^{***}$	799	0.94	$1.10 \pm 0.015^{***}$	$3.67 \pm 0.082^{***}$	$-0.05 \pm 0.010^{***}$	594	0.99
H, I	$0.47 \pm 0.024^{***}$	$4.35 \pm 0.150^{***}$	$0.25 \pm 0.009^{***}$	848	0.95	$0.92 \pm 0.058^{***}$	$5.33 \pm 0.222^{***}$	-0.03 ± 0.035	243	0.98
F, GR	$0.50 \pm 0.020^{***}$	$4.35 \pm 0.131^{***}$	$0.21 \pm 0.007^{***}$	1254	0.94	$1.16 \pm 0.025^{***}$	$5.49 \pm 0.167^{***}$	$-0.15 \pm 0.014^{***}$	489	0.98
J, PA	$0.39 \pm 0.023^{***}$	$6.64 \pm 0.296^{***}$	$0.25 \pm 0.008^{***}$	1124	0.91	$0.79 \pm 0.065^{***}$	$7.24 \pm 0.388^{***}$	0.04 ± 0.038	276	0.97
R, M	$0.41 \pm 0.021^{***}$	$4.23 \pm 0.154^{***}$	$0.25 \pm 0.007^{***}$	1147	0.92	$0.76 \pm 0.062^{***}$	$5.97 \pm 0.351^{***}$	0.06 ± 0.035	229	0.96
M, NR	$0.61 \pm 0.051^{***}$	$4.32 \pm 0.290^{***}$	$0.24 \pm 0.020^{***}$	333	0.88	$1.43 \pm 0.249^{***}$	$5.96 \pm 0.553^{***}$	-0.31 ± 0.186	34	0.99
R, JE	$0.32 \pm 0.025^{***}$	$4.27 \pm 0.209^{***}$	$0.32 \pm 0.009^{***}$	1034	0.92	$0.84 \pm 0.037^{***}$	$4.90 \pm 0.160^{***}$	$0.05 \pm 0.023^{*}$	581	0.98
C, J	$0.31 \pm 0.033^{***}$	$5.17 \pm 0.273^{***}$	$0.30 \pm 0.013^{***}$	430	0.90	$1.13 \pm 0.460^{*}$	$2.99 \pm 0.458^{***}$	-0.03 ± 0.289	18	0.98
W, A	$0.42 \pm 0.041^{***}$	$4.69 \pm 0.324^{***}$	$0.27 \pm 0.017^{***}$	321	0.91	$1.18 \pm 0.161^{***}$	$5.78 \pm 0.662^{***}$	$-0.24 \pm 0.101^{*}$	77	0.97
E, SJ	$0.33 \pm 0.032^{***}$	$8.99 \pm 1.000^{***}$	$0.27 \pm 0.011^{***}$	1171	0.88	$1.23 \pm 0.032^{***}$	$7.08 \pm 0.321^{***}$	$-0.21 \pm 0.017^{***}$	842	0.97
M, RC	$0.50 \pm 0.030^{***}$	$3.62 \pm 0.193^{***}$	$0.26 \pm 0.010^{***}$	801	0.92	$0.85 \pm 0.046^{***}$	$6.14 \pm 0.345^{***}$	0.04 ± 0.027	467	0.97
F, G	$0.34 \pm 0.031^{***}$	$5.07 \pm 0.224^{***}$	$0.32 \pm 0.012^{***}$	544	0.94	$0.59 \pm 0.131^{***}$	$6.13 \pm 0.327^{***}$	0.16 ± 0.083	172	0.97
S, G	$0.29 \pm 0.035^{***}$	$6.04 \pm 0.425^{***}$	$0.32 \pm 0.014^{***}$	527	0.92	$0.71 \pm 0.093^{***}$	$7.85 \pm 0.422^{***}$	0.05 ± 0.056	342	0.97
P, RP	$0.42 \pm 0.028^{***}$	$3.59 \pm 0.157^{***}$	$0.27 \pm 0.010^{***}$	641	0.93	$1.25 \pm 0.062^{***}$	$4.54 \pm 0.208^{***}$	$-0.23 \pm 0.039^{***}$	201	0.97
S, K	$0.54 \pm 0.023^{***}$	$3.11 \pm 0.092^{***}$	$0.24 \pm 0.008^{***}$	1098	0.93	$1.23 \pm 0.029^{***}$	$5.37 \pm 0.148^{***}$	$-0.22 \pm 0.017^{***}$	490	0.98
G, CW	$0.42 \pm 0.046^{***}$	$21.10 \pm 6.741^{**}$	$0.20 \pm 0.017^{***}$	546	0.87	$1.29 \pm 0.053^{***}$	$10.90 \pm 0.893^{***}$	$-0.28 \pm 0.030^{***}$	368	0.98
C, CR	$0.57 \pm 0.022^{***}$	$5.04 \pm 0.154^{***}$	$0.17 \pm 0.007^{***}$	1481	0.87	$0.92 \pm 0.053^{***}$	$6.84 \pm 0.441^{***}$	0.01 ± 0.035	117	0.99
L, RA	$0.38 \pm 0.044^{***}$	$7.80 \pm 0.877^{***}$	$0.25 \pm 0.016^{***}$	470	0.87	$1.02 \pm 0.029^{***}$	$4.92 \pm 0.244^{***}$	0.00 ± 0.023	243	0.99
V, RD	$0.54 \pm 0.022^{***}$	$3.34 \pm 0.103^{***}$	$0.23 \pm 0.008^{***}$	958	0.94	$1.01 \pm 0.039^{***}$	$6.47 \pm 0.284^{***}$	$-0.11 \pm 0.022^{***}$	333	0.98
C, TR	$0.25 \pm 0.022^{***}$	$9.60 \pm 0.652^{***}$	$0.24 \pm 0.008^{***}$	1673	0.87	$0.76 \pm 0.090^{***}$	$18.10 \pm 3.122^{***}$	-0.02 ± 0.052	364	0.94
P, RD	$0.52 \pm 0.018^{***}$	$3.51 \pm 0.100^{***}$	$0.23 \pm 0.006^{***}$	1277	0.95	$1.09 \pm 0.030^{***}$	$4.81 \pm 0.130^{***}$	$-0.10 \pm 0.017^{***}$	519	0.99
S, B	$0.51 \pm 0.036^{***}$	$6.98 \pm 0.520^{***}$	$0.18 \pm 0.014^{***}$	680	0.81	$0.44 \pm 0.113^{***}$	$6.69 \pm 0.555^{***}$	$0.27 \pm 0.084^{**}$	160	0.96
S, CJ	0.05 ± 0.028	$7.55 \pm 0.541^{***}$	$0.39 \pm 0.010^{***}$	1172	0.88	$0.58 \pm 0.097^{***}$	$8.26 \pm 1.211^{***}$	$0.21 \pm 0.058^{***}$	234	0.96
T, P	$0.48 \pm 0.025^{***}$	$4.77 \pm 0.216^{***}$	$0.23 \pm 0.008^{***}$	1351	0.91	$0.86 \pm 0.029^{***}$	$6.99 \pm 0.283^{***}$	-0.01 ± 0.017	547	0.98
S, JW	$0.59 \pm 0.022^{***}$	$3.86 \pm 0.118^{***}$	$0.19 \pm 0.008^{***}$	1040	0.93	$1.17 \pm 0.029^{***}$	$7.01 \pm 0.256^{***}$	$-0.20 \pm 0.018^{***}$	441	0.98
Ave. $\pm$ Std. Dev.	0.40 ± 0.14	6.64 ± 6.24	0.26 ± 0.05	100	0.91 ± 0.03	0.99 ± 0.22	9.55 ± 26.30	-0.06 ± 0.14	99	0.97 ± 0.01

TABLE S21: Regression best-fit parameters for individual biology careers: dataset [D], 51-100.

	$c(t-1) < c_\times$					$c(t-1) \geq c_\times$				
Name	π_i	$\overline{\tau}_i$	ρ_i	N_i	Adj. R_i^2	π_i	$\overline{\tau}_i$	ρ_i	N_i	Adj. R_i^2
B, S	$0.28 \pm 0.053^{***}$	$67.40 \pm 15.250^{***}$	$0.05 \pm 0.012^{***}$	235	0.42	$0.34 \pm 0.061^{***}$	$83.00 \pm 28.240^{**}$	-0.01 ± 0.031	233	0.62
C, SS	$0.21 \pm 0.069^{**}$	$47.70 \pm 14.560^{**}$	$0.10 \pm 0.017^{***}$	173	0.54	$0.74 \pm 0.054^{***}$	$36.60 \pm 4.230^{***}$	$-0.13 \pm 0.030^{***}$	285	0.83
I, K	$0.76 \pm 0.101^{***}$	$17.10 \pm 4.020^{***}$	0.01 ± 0.033	63	0.71	$0.45 \pm 0.113^{***}$	36.90 ± 23.050	0.09 ± 0.079	39	0.90
F, EE	0.19 ± 0.134	$17.90 \pm 4.872^{***}$	$0.22 \pm 0.043^{***}$	49	0.57	2.27 ± 1.014	-9.03 ± 7.781	-1.27 ± 0.695	5	0.93
A, AA	0.22 ± 0.125	$9.81 \pm 2.621^{***}$	$0.21 \pm 0.040^{***}$	56	0.62	0.75 ± 0.695	6.93 ± 4.559	-0.06 ± 0.396	16	0.56
J, N	-0.09 ± 0.106	$19.70 \pm 7.342^{**}$	$0.22 \pm 0.031^{***}$	82	0.53	$0.47 \pm 0.153^{**}$	$5.67 \pm 0.826^{***}$	$0.25 \pm 0.106^{*}$	47	0.87
J, JA	$0.40 \pm 0.114^{***}$	$19.90 \pm 5.757^{***}$	$0.11 \pm 0.033^{**}$	70	0.45	1.67 ± 0.687	34.20 ± 49.260	-0.77 ± 0.441	7	0.59
G, H	$0.58 \pm 0.098^{***}$	$19.20 \pm 6.189^{**}$	0.03 ± 0.031	61	0.54	$0.77 \pm 0.275^{*}$	$7.76 \pm 1.426^{***}$	-0.08 ± 0.206	25	0.85
S, B	$0.35 \pm 0.042^{***}$	$6.84 \pm 0.506^{***}$	$0.16 \pm 0.008^{***}$	636	0.77	$0.95 \pm 0.020^{***}$	$10.10 \pm 0.362^{***}$	$-0.09 \pm 0.009^{***}$	1414	0.92
M, J	$0.38 \pm 0.104^{***}$	$8.31 \pm 1.297^{***}$	$0.22 \pm 0.029^{***}$	109	0.73	$0.66 \pm 0.053^{***}$	$12.10 \pm 1.181^{***}$	0.04 ± 0.037	205	0.93
H, WY	$0.33 \pm 0.077^{***}$	$17.10 \pm 3.375^{***}$	$0.10 \pm 0.021^{***}$	145	0.55	0.24 ± 0.154	$25.40 \pm 8.411^{**}$	0.12 ± 0.082	57	0.71
S, G	$0.26 \pm 0.075^{***}$	$9.98 \pm 1.953^{***}$	$0.18 \pm 0.020^{***}$	154	0.71	$0.70 \pm 0.103^{***}$	$10.50 \pm 1.285^{***}$	0.02 ± 0.051	119	0.85
L, S	0.17 ± 0.116	310.00 ± 309.500	0.01 ± 0.019	24	0.09	$0.50 \pm 0.158^{**}$	205.00 ± 306.800	-0.13 ± 0.085	30	0.43
S, JP	$0.33 \pm 0.095^{***}$	$15.90 \pm 3.724^{***}$	$0.14 \pm 0.026^{***}$	103	0.59	$0.66 \pm 0.065^{***}$	$20.50 \pm 3.862^{***}$	-0.03 ± 0.039	126	0.92
S, IE	$0.37 \pm 0.092^{***}$	$19.60 \pm 5.386^{***}$	$0.07 \pm 0.028^{*}$	96	0.50	0.27 ± 0.239	27.10 ± 17.190	0.12 ± 0.153	51	0.68
L, N	0.14 ± 0.140	17.00 ± 9.303	$0.16 \pm 0.045^{***}$	49	0.39	0.57 ± 0.539	41.10 ± 139.300	-0.15 ± 0.373	10	0.45
B, ET	-0.05 ± 0.091	401.00 ± 428.600	0.03 ± 0.019	34	0.04	$0.43 \pm 0.099^{***}$	$-92.80 \pm 41.660^{*}$	$-0.22 \pm 0.053^{***}$	68	0.65
B, R	-0.03 ± 0.083	$59.50 \pm 21.080^{**}$	$0.11 \pm 0.014^{***}$	141	0.43	$0.64 \pm 0.071^{***}$	$42.70 \pm 7.983^{***}$	-0.04 ± 0.030	195	0.80
M, WS	$0.56 \pm 0.123^{***}$	$14.20 \pm 4.764^{**}$	0.05 ± 0.042	58	0.51	0.37 ± 0.341	47.90 ± 42.320	-0.06 ± 0.174	54	0.39
A, MF	-0.10 ± 0.112	$8.30 \pm 2.288^{***}$	$0.36 \pm 0.029^{***}$	99	0.75	$0.84 \pm 0.107^{***}$	$7.83 \pm 0.957^{***}$	0.02 ± 0.056	113	0.92
S, JL	$0.23 \pm 0.093^{*}$	$14.50 \pm 5.509^{**}$	$0.15 \pm 0.024^{***}$	111	0.60	$0.73 \pm 0.089^{***}$	$12.10 \pm 1.710^{***}$	-0.05 ± 0.048	137	0.80
E, S	$0.35 \pm 0.075^{***}$	$23.30 \pm 8.309^{**}$	$0.09 \pm 0.022^{***}$	155	0.60	$0.51 \pm 0.174^{**}$	$32.90 \pm 14.920^{*}$	-0.06 ± 0.087	108	0.59
H, M	0.23 ± 0.203	90.20 ± 69.340	$0.06 \pm 0.025^{*}$	51	0.17	0.09 ± 0.046	$123.00 \pm 42.520^{**}$	$0.07 \pm 0.024^{**}$	209	0.43
B, A	$0.24 \pm 0.070^{***}$	$13.60 \pm 2.215^{***}$	$0.14 \pm 0.018^{***}$	129	0.65	$0.61 \pm 0.092^{***}$	$26.10 \pm 7.216^{***}$	-0.04 ± 0.047	141	0.88
S, S	$0.46 \pm 0.111^{***}$	$5.78 \pm 0.847^{***}$	$0.21 \pm 0.025^{***}$	104	0.74	$0.99 \pm 0.031^{***}$	$11.00 \pm 0.886^{***}$	$-0.12 \pm 0.023^{***}$	226	0.96
L, HB	$0.29 \pm 0.083^{***}$	$17.80 \pm 4.952^{***}$	$0.14 \pm 0.023^{***}$	132	0.63	$0.70 \pm 0.095^{***}$	$22.00 \pm 4.371^{***}$	-0.06 ± 0.050	179	0.86
C, TH	$0.27 \pm 0.106^{*}$	$7.34 \pm 2.213^{**}$	$0.19 \pm 0.030^{***}$	110	0.62	$0.86 \pm 0.096^{***}$	$7.28 \pm 1.195^{***}$	-0.05 ± 0.048	102	0.90
W, JL	0.21 ± 0.150	$43.70 \pm 12.270^{***}$	$0.09 \pm 0.016^{***}$	62	0.45	$0.92 \pm 0.330^{**}$	$31.90 \pm 11.820^{*}$	-0.09 ± 0.095	28	0.56
O, O	0.18 ± 0.155	$13.90 \pm 5.104^{**}$	$0.23 \pm 0.061^{***}$	45	0.41	-1.23 ± 2.444	6.59 ± 3.801	1.40 ± 1.765	6	0.85
W, JHC	$0.27 \pm 0.099^{**}$	$49.90 \pm 24.180^{*}$	$0.09 \pm 0.032^{**}$	61	0.58	$1.12 \pm 0.312^{**}$	$10.50 \pm 4.320^{*}$	-0.27 ± 0.171	18	0.83
H, MW	$0.40 \pm 0.080^{***}$	$10.10 \pm 1.727^{***}$	$0.17 \pm 0.023^{***}$	104	0.73	0.09 ± 0.187	$8.94 \pm 1.018^{***}$	$0.34 \pm 0.092^{***}$	79	0.85
Z, O	$0.19 \pm 0.087^{*}$	$35.80 \pm 8.736^{***}$	$0.10 \pm 0.016^{***}$	96	0.54	$0.34 \pm 0.060^{***}$	$67.60 \pm 16.080^{***}$	0.02 ± 0.031	230	0.68
W, H	$0.25 \pm 0.084^{**}$	$31.80 \pm 10.070^{**}$	$0.09 \pm 0.028^{**}$	68	0.43	$1.91 \pm 0.546^{**}$	-25.60 ± 19.870	$-1.15 \pm 0.316^{**}$	16	0.72
H, WC	0.04 ± 0.074	$23.70 \pm 6.876^{***}$	$0.16 \pm 0.020^{***}$	160	0.58	0.22 ± 0.139	$25.70 \pm 8.003^{**}$	0.10 ± 0.064	91	0.69
W, H	$0.24 \pm 0.084^{**}$	$15.40 \pm 3.424^{***}$	$0.12 \pm 0.026^{***}$	64	0.53	0.54 ± 1.059	26.10 ± 127.000	-0.00 ± 0.483	10	0.67
K, CE	$0.29 \pm 0.064^{***}$	$11.00 \pm 1.558^{***}$	$0.16 \pm 0.014^{***}$	289	0.69	$0.79 \pm 0.044^{***}$	$10.50 \pm 0.674^{***}$	-0.02 ± 0.021	356	0.92
D, H	$0.50 \pm 0.093^{***}$	$8.37 \pm 1.591^{***}$	$0.13 \pm 0.028^{***}$	100	0.65	$0.57 \pm 0.160^{***}$	$13.60 \pm 6.173^{*}$	0.05 ± 0.121	44	0.87
M, M	0.04 ± 0.175	69.90 ± 43.220	$0.07 \pm 0.019^{***}$	45	0.25	$0.25 \pm 0.099^{*}$	$76.10 \pm 34.770^{*}$	-0.01 ± 0.040	62	0.29
W, A	$0.56 \pm 0.208^{**}$	$5.23 \pm 1.187^{***}$	$0.24 \pm 0.052^{***}$	51	0.68	$0.70 \pm 0.059^{***}$	$9.04 \pm 0.633^{***}$	$0.10 \pm 0.042^{*}$	136	0.97
M, EE	0.14 ± 0.125	$27.60 \pm 12.640^{*}$	$0.19 \pm 0.059^{**}$	45	0.58	$0.55 \pm 0.125^{***}$	$14.40 \pm 2.998^{***}$	0.05 ± 0.095	64	0.83
M, GD	$0.39 \pm 0.065^{***}$	$22.30 \pm 5.250^{***}$	$0.05 \pm 0.018^{**}$	146	0.56	0.17 ± 0.163	169.00 ± 519.400	0.10 ± 0.082	103	0.71
F, W	$0.18 \pm 0.089^{*}$	$17.00 \pm 4.733^{***}$	$0.14 \pm 0.029^{***}$	86	0.51	0.18 ± 0.406	$-18.60 \pm 8.718^{*}$	-0.05 ± 0.219	42	0.69
A, M	$0.42 \pm 0.071^{***}$	$6.44 \pm 0.710^{***}$	$0.15 \pm 0.016^{***}$	212	0.64	$0.70 \pm 0.062^{***}$	$8.37 \pm 0.651^{***}$	0.02 ± 0.034	209	0.88
K, J	$0.39 \pm 0.066^{***}$	$12.70 \pm 2.455^{***}$	$0.11 \pm 0.017^{***}$	153	0.71	$0.82 \pm 0.098^{***}$	$21.60 \pm 5.870^{***}$	$-0.13 \pm 0.043^{**}$	164	0.88
M, B	$0.42 \pm 0.111^{***}$	$6.31 \pm 1.097^{***}$	$0.17 \pm 0.030^{***}$	91	0.68	$0.59 \pm 0.103^{***}$	$17.60 \pm 2.593^{***}$	0.00 ± 0.055	113	0.87
V, HS	$0.00 \pm 0.000^{***}$	$50.00 \pm 22.070^{*}$	$0.12 \pm 0.030^{***}$	23	0.35	$0.27 \pm 0.121^{*}$	-203.00 ± 259.900	-0.04 ± 0.045	65	0.25
H, G	$0.27 \pm 0.046^{***}$	$68.20 \pm 18.920^{***}$	$0.04 \pm 0.015^{**}$	318	0.48	$0.82 \pm 0.088^{***}$	$64.10 \pm 27.160^{*}$	$-0.23 \pm 0.060^{***}$	147	0.85
C, LA	$0.32 \pm 0.052^{***}$	$11.90 \pm 1.590^{***}$	$0.14 \pm 0.012^{***}$	327	0.70	$0.80 \pm 0.049^{***}$	$16.30 \pm 1.767^{***}$	$-0.07 \pm 0.022^{***}$	425	0.89
O, A	0.18 ± 0.092	$7.11 \pm 1.591^{***}$	$0.28 \pm 0.025^{***}$	104	0.82	$0.47 \pm 0.112^{***}$	$5.82 \pm 0.934^{***}$	$0.24 \pm 0.059^{***}$	81	0.91
L, E	0.22 ± 0.193	$5.05 \pm 1.827^{**}$	$0.33 \pm 0.053^{***}$	57	0.63	$1.16 \pm 0.289^{***}$	$7.88 \pm 2.796^{*}$	-0.20 ± 0.178	19	0.95
E, P	$0.19 \pm 0.095^{*}$	$28.00 \pm 10.410^{**}$	$0.11 \pm 0.031^{***}$	69	0.37	0.14 ± 1.121	-77.30 ± 335.700	-0.02 ± 0.617	9	0.12
Ave. $\pm$ Std. Dev.	0.27 ± 0.17	30.60 ± 56.80	0.14 ± 0.07	49	0.56 ± 0.15	0.54 ± 0.25	21.40 ± 54.30	0.01 ± 0.11	38	0.78 ± 0.18

TABLE S22: Regression best-fit parameters for individual mathematics careers: dataset [E], 1-50. Note: for individual career regression we use $c_\times = 10$ since for many mathematicians there are insufficient data satisfying $c(t-1) \geq c_\times$.

Career dataset	$\pi \pm$ std. err.	$\overline{\tau} \pm$ std. err.	$\rho \pm$ std. err.	N_{data}	Adj. R^2	$c_\times$
Physics [A/B]	$1.07 \pm 0.01^{***}$	$8.77 \pm 0.04^{***}$	$0.078 \pm 0.004^{***}$	68,001	0.546	40
Biology [D]	$1.12 \pm 0.01^{***}$	$5.99 \pm 0.03^{***}$	$0.069 \pm 0.005^{***}$	54,029	0.616	100
Math [E]	$0.93 \pm 0.02^{***}$	$14.31 \pm 0.49^{**}$	$0.032 \pm 0.012^{***}$	3,022	0.418	20

TABLE S23: Results of the multivariate fixed-effects regression model in Eq. (S16)that accounts for aggregate secular growth of science. Estimates of the best-fit parameters for each discipline using papers with $c(t-1) \geq c_\times$ and for $t \leq 30$. Standard errors in parentheses with $*p < 0.05, **p < 0.01, ***p < 0.001$.

Career dataset	$\pi \pm$ std. err.	$\overline{\tau} \pm$ std. err.	$\rho \pm$ std. err.	N_{data}	Adj. R^2	$c_\times$
Physics [A/B]	$0.31 \pm 0.01^{***}$	$8.70 \pm 0.04^{***}$	$0.085 \pm 0.002^{***}$	134,516	0.270	40
Biology [D]	$0.38 \pm 0.01^{***}$	$5.71 \pm 0.02^{***}$	$0.075 \pm 0.003^{***}$	109,386	0.388	100
Math [E]	$0.22 \pm 0.01^{***}$	$21.37 \pm 0.68^{***}$	$0.046 \pm 0.006^{***}$	7,491	0.171	20

TABLE S24: Results of the multivariate fixed-effects regression model in Eq. (S16) that accounts for aggregate secular growth of science. Estimates of the best-fit parameters for each discipline using papers with $c(t-1) < c_\times$ and for $t \leq 30$. Standard errors in parentheses with $*p < 0.05, **p < 0.01, ***p < 0.001$.