

Summer 2012

Alumni

Boston University Physics

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Message from the Chair

Welcome to the fourth issue of the Boston University Physics Department Alumni Newsletter! It's been a while since the previous issue, and we hope to have more regular newsletters in the future. Much has happened in the Physics Department and at Boston University since the last alumni newsletter in December of 2006, and we thought you would enjoy learning about these many changes. This newsletter

also contains a look at our newest faculty members, some news items from the past three years, as well as a few notes from our alumni. Please do stay in touch with the department.

You are also invited to the next alumni reunion, which will be held Friday and Saturday, September 21 & 22, 2012. The program will open with a lunch on Friday and close with lunch on Saturday. More details about the program will

be forthcoming. All alumni, both graduate and undergraduate, are invited to attend. Please watch your email for an official invitation. Our departmental alumni reunion is just one part of BU's Alumni Weekend. You can obtain details about university-wide events at <http://www.bu.edu/alumniweekend>. We hope to see you in September!

Changes in Departmental Leadership

In July 2011, Sid Redner was appointed Departmental Chair, following the three-year term of Claudio Rebbi. Redner is a condensed-matter theorist who specializes in non-equilibrium statistical physics. Professor Redner has been a faculty member in the BU Physics Department since 1978. He is the author of the monograph "A Guide to First-Passage Processes" (Cambridge University Press, 2001), and co-author, with Paul Krapivsky and Eli Ben-Naim, of the recent graduate text "A Kinetic View of Statistical Physics" (Cambridge University Press, 2010). He served as Acting Chair in 1993-94 and 2003-04.



Clockwise from top left: Sid Redner, Steve Ahlen, Karl Ludwig, Rob Carey

In the summer of 2011, [Steve Ahlen](#) was appointed as [Director of Graduate Studies](#), succeeding Jim Stone. This past spring [Rob Carey](#) was appointed as [Director of Undergraduate Studies](#), succeeding Martin Schmaltz. [Karl Ludwig](#) was also appointed to the newly-created position of [Director of Academics](#), where he will oversee most aspects of the

departmental course offerings. Finally, Bill Skocpol has stepped down from his position of Faculty Director, a post that he ably filled for many years. We thank the previous directors of graduate and undergraduate studies, as well as Bill Skocpol, for their devoted service to the department.

Changes in University Leadership

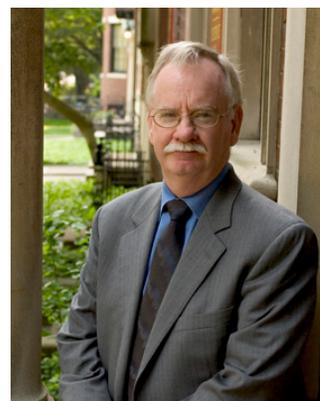
[Robert A. Brown](#), a distinguished chemical engineer, became the 10th president of Boston University in 2005. Dr. Brown is a member of the American Academy of Arts and Sciences, the National Academy of Engineering, and the National Academy of Sciences. Dr. Brown was the Warren K. Lewis Professor of Chemical Engineering at MIT and he also served as head of the Chemical Engineering Department, Dean of the School of Engineering, and Provost. At Boston University, Dr. Brown initiated a ten-year strategic plan, "Choosing to be Great", that defines goals to be met to establish Boston University as one of the great large private research universities in the world.

In January 2011, [Jean Morrison](#), Executive Vice-Provost for academic affairs at the University of Southern California, was named [BU Provost](#), succeeding David Campbell, who returned to teaching and research in our department. Morrison was a Professor of Earth Sciences at USC, where she was the Sigma Chi Professor of the Year in 2000 and received Sigma Gamma Epsilon's Excellence in Teaching Award. In 2002, she received the prestigious USC

Associates Award for Excellence in Teaching.

[Virginia Sapiro](#), a political scientist and women's studies scholar, became [Dean of the College and Graduate School of Arts and Sciences](#) in July 2007. She was most recently Vice Provost for teaching and learning at the University of Wisconsin-Madison, where she chaired both the Department of Political Science and the Women's Studies Program; she also served as Interim Provost and Vice Chancellor of Academic Affairs. She is the first female dean in the 134-year history of the College of Arts and Sciences.

Clockwise from top: Robert Brown, Jean Morrison, Virginia Sapiro



New Faculty Developments

Over the past several years, our Physics Department has had the good fortune of making some excellent new additions to the faculty. Here are their backgrounds:

Tulika Bose (PhD 2006, Columbia University), a high-energy experimentalist, joined the department as an Assistant Professor in September 2008. Her post-doctoral research at Brown University focused on direct searches for new phenomena at the D0 experiment at the Fermilab Tevatron and at the Compact Muon Solenoid (CMS) experiment at the CERN Large Hadron Collider. She has also extensively worked on trigger and data acquisition for both D0 and CMS and is currently serving as the Deputy Trigger Coordinator of the CMS experiment. She is an author of numerous publications in refereed journals and is actively involved in searches for new physics using data collected by CMS. Prof. Bose was awarded the Alfred P. Sloan Research foundation fellowship In February 2012.

Kevin Black (PhD 2005, Boston University), also a high-energy experimentalist, joined the fac-

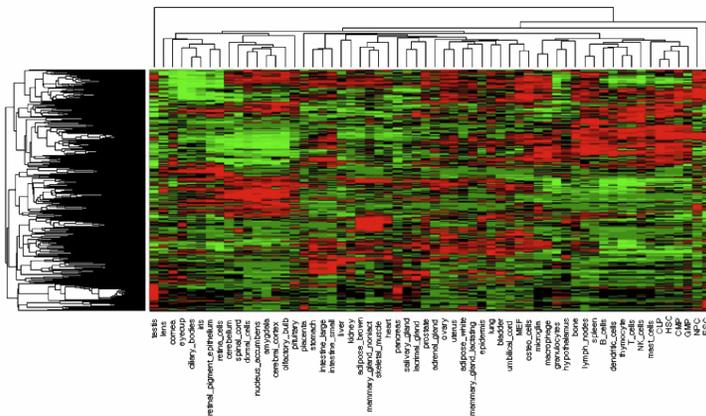
ulty as an Assistant Professor in September 2010. His work during his PhD focused on a measurement of the top quark mass and

development of the D0 trigger system. His post-doctoral research at Harvard University focused on direct searches for new phenomena at the ATLAS experiment at the CERN Large Hadron Collider. He has also extensively worked on the software to reconstruct events with the large and complex ATLAS detector. He is an author of numerous publications in refereed journals and is actively involved in the extraction of first physics results from the ATLAS detector using early LHC data.

Pankaj Mehta (PhD 2006, Rutgers University), a biological physicist, started in the Department as an Assistant Professor in August 2010. Professor Mehta



Clockwise from top left: Tulika Bose, Kevin Black, David Bishop, Pankaj Mehta



Hierarchical clustering of gene expression profiles across cell types. Professor Mehta will use this data to model the genetic and epigenetic bases of cellular identity.

came to BU from Princeton University, where he was employed as a Postdoctoral Research Associate. Mehta is interested in theoretical problems at the interface of physics and biology. He strives to understand how large-scale, collective behaviors observed in biological systems emerge from the interaction of many individual molecular elements, and how these interactions allow cells to perform complex computations in response to environmental cues. Professor Mehta was a recipient of the Alfred P. Sloan foundation during his first year of teaching, in February of 2011.

David Bishop (PhD 1978, Cornell University) joined the Department in the spring of 2011. He is also the Head of the Division of Materials Science and Engineering Program, and serves as a Professor in the Electrical and Computer Engineering Department. Professor Bishop has a wide range of research interests in experimental condensed-matter physics including: nanotechnology; low-temperature physics and the mechanical properties of materials at low temperature; superconductivity and superfluidity, in particular, magnetic vortices in superconductors and their phase transitions; the Casimir effect and Casimir oscillators; VLSI cooling using nano-patterned structures as well as energy-efficient networking; electron coherence effects in metallic nanostructures at low temperatures; cybersecurity and protecting critical infrastructure. We are looking forward to many great developments in the new and burgeoning Materials Science and Engineering Program.

Departmental News

Updated Website

We recently updated our departmental website, which can be found at <http://physics.bu.edu>. We hope that you will visit often! One new feature of our updated website is the news items section that is prominently displayed on our homepage. We also welcome your contributions to this news section. Please send your news items to Solomon Posner (soldp3@bu.edu).

Faculty and Student Awards

Andrew Duffy won the 2012 Metcalf Cup and Prize, the most prestigious teaching award at BU. It recognizes Andrew's accomplishments in teaching, pedagogical developments, and his positive influence on a large cadre of students. This award was bestowed at the BU Commencement ceremony on Sunday May 20.

Assistant Professor Tulika Bose won a prestigious Alfred P.

Sloan Fellowship in 2012. Through August 2012 she is stationed at CERN working on the CMS experiment at the Large Hadron Collider. **Assistant Professor Pankaj Mehta also won a Sloan Foundation Fellowship in 2011.** His research focuses on Biological Physics, Systems Biology, and Statistical Physics.

Anatoli Polkovnikov received a prestigious Simons Fellowship in Theoretical Physics, an award given to a select group of 27 distinguished physicists from the USA and Canada 2012-2013. This program funds faculty for semester-long research leaves from teaching and administrative obligations.

Martin Schmaltz was promoted to Full Professor in March 2012. He specializes in theoretical particle physics, with a focus on extracting the fundamental physics underlying the results from the Large Hadron Collider (LHC) at CERN in Switzerland. He is one of the



Andrew Duffy, winner of BU's 2012 Metcalf Cup and Prize, engages students in the classroom.

nation's top experts on "beyond the Standard Model" physics.

The 2011 High Energy and Particle Physics Prize for an outstanding contribution was awarded to Sheldon Glashow, along with colleagues John Iliopoulos and Luciano Maiani, "for their crucial contribution to the theory of flavour, presently embedded in the Standard Theory of strong and electroweak interactions." In 1970, they proposed the existence of the "charmed" quark, a prediction that was spectacularly confirmed by experimental observations four years later.

Kenneth Lane was awarded the 2011 J. J. Sakurai Prize for Theoretical Particle Physics of the APS. He shared the prize with Drs. Estia Eichten of Fermilab, Ian Hinchliffe of the Lawrence Berkeley National Laboratory and Chris Quigg of Fermilab. The Prize recognizes and outstanding achievement in particle theory. The citation will read: "For their work, separately and collectively, to chart a course for the exploration of TeV scale physics using multi-TeV hadron colliders."

In November 2011, Andrew Cohen and Sheldon Glashow

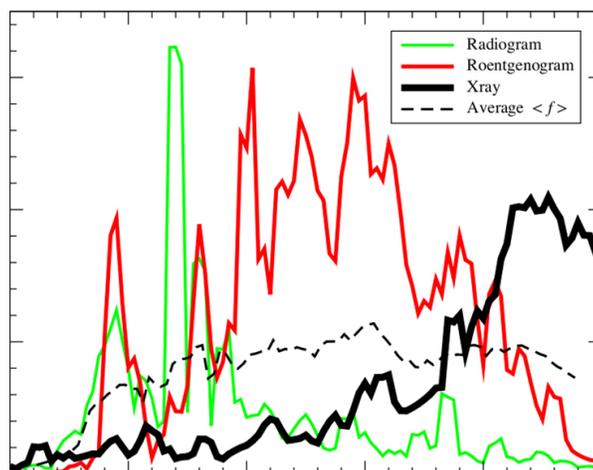
debunked the widely-reported experimental measurement which suggested that neutrinos travel faster than the speed of light. Cohen and Glashow noted that such neutrinos would lose energy by a mechanism analogous to Cerenkov radiation. The absence of this radiation showed that superluminal neutrinos do not exist. Their seminal work has again demonstrated the correctness of Einstein's theory of special relativity.

In April 2011, President Robert A. Brown named H. Eugene

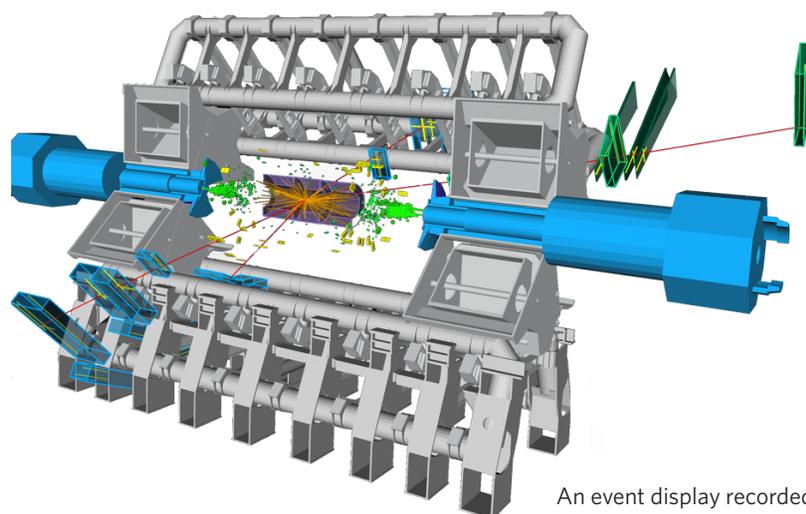
Stanley of the Physics Department as a William Fairfield Warren Distinguished Professor. As President Brown noted at the time of the award, this professorship is "the highest honor bestowed upon senior members of our faculty who will continue to be involved in research and scholarship, as well as in the civic life of the University". This esteemed appointment is held by eight faculty members out of a total faculty of more than 2600.

In 2010, the APS elected William Klein, Andrei Ruckenstein (BU's Vice-President for research), and Emeritus Professor George Zimmerman as APS Fellows. Also selected was Research Associate Professor Plamen Ivanov. In 2011, Ophelia Tsui was elected as an APS Fellow. Congratulations to all of our new Fellows!

In April 2012, David Sperka won one of the 10 graduate student awards of the Compact Muon Solenoid (CMS) experiment at the Large Hadron Collider (LHC)



Birth and extinction of the word 'xray' and its synonyms
(Peterson et al)

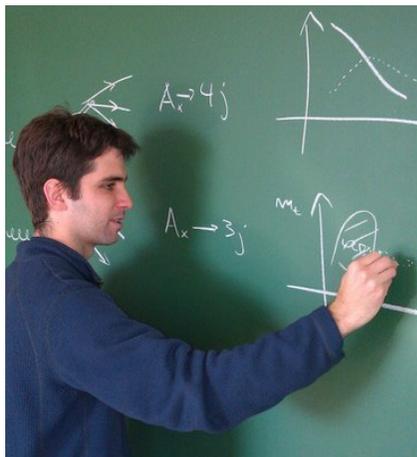


An event display recorded with the ATLAS detector at the Large Hadron Collider at CERN

for his “outstanding High Level Trigger work on CPU performance, muon triggers and on-call support”. David is based at the LHC, serves as a 24/7 on-call expert for the CMS Trigger, and works on searches for new heavy gauge bosons. David works with Prof. Tulika Bose.

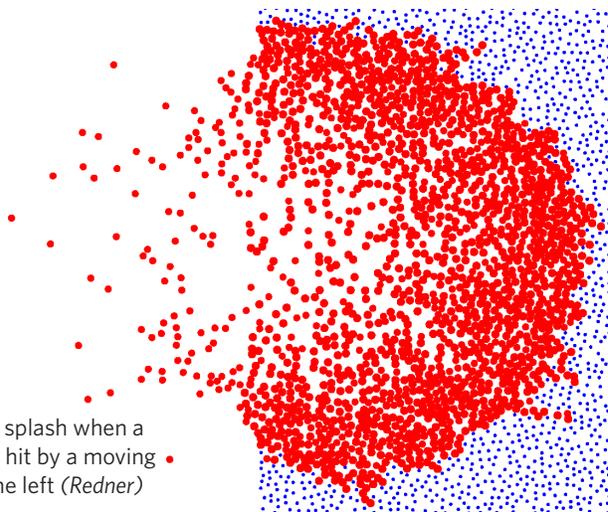
The 2012 findings of departmental alumnus [Alexander Petersen](#) and graduate student [Joel Tenenbaum](#) were featured in [Science News](#), [MSNBC](#), the [Wall Street Journal](#), among others. Their work draws statistical connections between business firms competing for market share and words “competing” for usage by speakers across three languages. They quantify the “tipping point”, at which an emerging word will go mainstream and show that significant historical events affect the way words “compete” with each other.

Graduate student [Gustavo Marques Tavares](#) won one of four fellowships awarded nationwide in February 2012 by the NSF funded [Large Hadron Collider Theory Initiative](#). Gustavo is a second-year graduate who is working with



Graduate student Gustavo Marques Tavares discusses predictions of his axigluon model for the LHC

Blast wave and splash when a stationary gas is hit by a moving particle from the left (Redner)



the Theoretical Particle Physics group. The fellowship will support his research to explain top quark asymmetry. He is currently working on predictions for the LHC experiments.

[Charles Hill](#), [Lina Necib](#), and [Sylvia Lewin](#), graduating seniors in the Physics Department in 2012, were elected to membership in Phi Beta Kappa by the Epsilon of Massachusetts Chapter at Boston University. Congratulations to all three students!

On the educational front, our department received a three-year \$300K grant in May 2011 from the [Physics Teacher Education Coalition \(PhysTEC\)](#) to fund a teacher-in-residence (TIR). The TIR is an experienced high-school physics teacher who works jointly with Physics and the School of Education (SED) on educational projects. Our PhysTEC project is led by Andrew Duffy, Bennett Goldberg, and Manher Jariwala of Physics, and Peter Garik of SED. PhysTEC funding to support a TIA comes at a propitious time. In fall 2011, we started using Learning Assistants in the discussion sections of introductory physics courses. Learning Assistants are undergraduates

who help graduate Teaching Assistants work with the students. The TIR has helped to train the Learning Assistants. We also recently started an experimental studio section in our algebra-based physics course. Studio is a mode of learning with an emphasis is on hands-on activities, rather than on lecture. Having an experienced physics teacher in-house will be a great asset as we re-design our curricular materials to implement the studio project.

In Memorium

On a sad note, Dr. Wolfgang Franzen passed away on March 27, 2012, just short of his 90th birthday on April 6. Wolf Franzen joined our physics faculty in 1961. His field of research was atomic physics. Wolf was awarded a NATO Senior Fellowship in 1970, which he spent at the University of Toulouse, France. In 1977 he served as a Fulbright lecturer at the National University in Bogota, Columbia. He also served as

Acting Chairman of the Physics Department in 1967 and 1971. In 1982 Wolf began a long collaboration with Michael El-Batanouny on surface physics. Their long collaboration produced novel designs of compact helium atom detectors that were also used in helium-atom scattering from surfaces. Wolf became a professor Emeritus in 1987 and enjoyed a long and productive period of retirement.



Wolfgang Franzen



Alvaro Roccaro

It is also with great sadness to report that Alvaro Roccaro, a brilliant student who joined our graduate program in 2006, passed away unexpectedly in October 2008. An outstanding student who initially planned to become a theorist, he surprised Professor Steve Ahlen in joining his experimental group in 2007. Alvaro's research focused on developing new detection techniques for dark matter searches and the identification of neutrons. Alvaro made important contributions to these projects and was deeply involved in these activities up to the day of his untimely death. He coauthored four publications in refereed journals about

his work. Alvaro was a remarkable physicist and human being, with an infectious enthusiasm for physics, whose kindness and friendliness attracted all who came in contact with him. In memory of Alvaro, the Physics Department established the "Alvaro Roccaro Giamporcaro Memorial Fund". An award from this fund is made annually to an advanced graduate student in recognition of outstanding research carried out with the creativity and enthusiasm characteristic of Alvaro. The Department also created the Alvaro Roccaro Memorial Library. In 2011, the University awarded Alvaro a posthumous Master of Arts diploma.

Notes from Graduation 2012

Undergraduates

This year we had 23 graduates; 19 Physics majors and 4 Astronomy and Physics majors. Congratulations to all of our graduates! Here's a summary of what they accomplished during their time at BU and their plans for the future.

Artem Akopyan did research in mathematical physics and is looking to continue work in applied physics in the Boston area.

Amir Alizadeh plans to finish up his minor at BU and take the MCAT. In August, he will start an internship in a biomedical company.

Nicolas Ampuero will be working in data analysis at EnerNOC, an energy management company, in Boston.

Nafiun Awal worked with Professor Kevin Black on the feasibility of detecting the decay of a charged techni-rho to a W boson and a photon at the LHC. He also simulated the upper-atmosphere plasma with Professor Meers Oppenheimer (Astronomy) and tested CMS hardware with Eric Hazen. He will attend NYU for graduate study in particle physics.

Meredith Bartlett will pursue a career in teaching high school physics.

Lee Hamill worked with Professor Karl Ludwig looking at the atomic structure of materials used for solid-oxide fuel-cell cathodes. After graduation Lee will be attending the University of Southern California to pursue a PhD in Materials Science & Engineering.

Charles Hill worked on measuring the electric dipole moment of the neutron with Professor Lee Roberts. He also joined the CMS collaboration and worked with

Professor James Rohlf and with Eric Hazen. He plans to continue to his work with CMS, as well as the g-2 experiment with Professor Roberts, and then pursue a graduate degree.

Sylvia Lewin worked with Professor Tulika Bose for the CMS High Level Trigger Group. She will be attending UC Berkley to pursue a PhD in physics.

Robert Marchwinski worked with Professor Dan Clemens measuring magnetic field strengths in molecular clouds. He will attend Penn State to pursue a PhD in Astronomy and Astrophysics.

Joshua Mascoop worked with Professor Jackson studying early

Marlee McDonald worked with Dr. Jason Bohlans in the Health Science Department on a behavioral study of musical pitch interval perception. She plans to stay in Boston and teach music. She ultimately plans to apply to graduate school at the New England Conservatory and the Longy School of Music.

Lina Necib did her senior thesis on Technicolor and dark matter with Professor Ken Lane. She worked with Professor Larry Sulak on the Higgs search and CMS test beam. She also worked on grapheme vibrations with Professors Bennett Goldberg and Anna Swan. She will attend MIT to study theoretical high-energy physics in the fall.



Class of 2012 graduates Artem Akopyan, Jason Zhao, Andrew Patti and Clover Su after receiving their diplomas

high-mass star formation. He also studied bulimic psychopathology and fear of negative evaluation with Professor Utschig in the Psychology Department. He plans to continue his research with Professor Jackson after graduation.

Andrew Patti worked with BUSAT (Boston University Student Satellite for Applications and Training), as well as on electronic detector programming research. Andrew will stay at BU to continue his research projects before pursu-

ing graduate school.

Kenny Peou is planning to take a year off from academics to gain work experience before likely pursuing graduate studies.

Karishma Sekhon worked in high-energy physics with Professor John Butler and the ATLAS collaboration. She also worked in nanophotonics and studied high-temperature superconductors with Professor George Zimmerman. Karishma will attend the University of Michigan to pursue a PhD in physics.

Ming Song will be attending the University of Maryland to pursue a PhD in physics.

Ting-Yi (Clover) Su worked with Professor Kevin Smith studying the synthesis of vanadium oxide thin films through the sol-gel process. She will be attending BU to pursue a PhD in physics.

Michael Threes is planning to engage in research work in biophysics before pursuing graduate studies.

Alexander Wynn worked with Professors Bennett Goldberg and Anna Swan, characterizing the physical properties of graphene. He plans to attend Vanderbilt University to pursue a PhD in physics as well as further pursue graphene research.

Jason Zhao worked on the optimization of the design and fabrication of Terahertz Metamaterials. He will work as a software engineer and plans to eventually pursue a MA or PhD in Physics or Engineering.

Graduates

This year we had 17 PhD graduates. Congratulations to them all! Here's what they're doing now:

Kaca Bradonjic received her PhD working on problems in general relativity with Emeritus Pro-

fessor John Stachel. Kaca will teach at Wellesley College for a year, where she will put to use the extensive teaching experience she

systems. He has been a post-doctoral associate with Professor Vadim Oganesyan at Cuny, working on quantum prethermalization



Doctoral graduate Kaca Bradonjic and Professor Karl Ludwig at the 2012 Physics convocation reception

acquired while in graduate school.

Mark Dickison received his PhD this May working with Professor Gene Stanley on dynamic and interacting complex networks. He will be working with the networks community through a postdoctoral position at the Defense Threat Reduction Agency.

Tyler Dunn received his PhD this May working with Professor Raj Mohanty on nonlinear dynamics in microelectromechanical systems (MEMS). He is currently pursuing opportunities in the MEMS industry in the Boston area.

Dan Gastler earned his PhD in May 2012. He will be working as a postdoctoral associate for Prof Ed Kearns.

Rafael Hipolito received his PhD working with Professor Anatoli Polkovnikov on the application of semi-classical techniques to study nonequilibrium quantum dynamics in ultracold atomic gas

and the emergence of generalized Gibbs ensembles. He will start a new position in July at Georgia Tech working with Paul Goldbart on semi-classical analysis of open quantum systems.

Matthias Imboden received his PhD this May working with Professor Raj Mohanty. For his dissertation, he studied dissipation effects in diamond NEMS resonators. He recently started a postdoctoral position, working with Professor David Bishop at Boston University.

Jianxun Lin received his PhD in January 2012. Currently he is a postdoctoral fellow in the Boston University biomedical engineering department with Professor Amit Meller, studying single-molecule biophysics and nano-biotechnology.

Chen Liu received his PhD this May working with Professor Anders Sandvik on computational condensed matter physics. He

will be doing geophysics work at CGGVeritas, a leading company that develops natural resources through geophysics.

[Mengkun Liu](#) received his PhD this May working with Professor Rick Averitt on infrared spectroscopy and terahertz methods. He will be continuing this line of work in a postdoctoral position at UCSD with Professor Dimitri Basov.

[Jeremy Love](#) received his PhD this January working with Professor John Butler on the ATLAS experiment located at CERN on the Large Hadron Collider. He is currently pursuing high-energy ex-

[David Schaich](#) completed his PhD in May 2011, working with Professors Claudio Rebbi and Rich Brower to study strongly-interacting theories of particle physics using high-performance computing techniques. After research experiences at the National Taiwan Normal University and the National Center for Theoretical Sciences (Taipei), he has been a postdoctoral fellow in lattice gauge theory at the University of Colorado at Boulder.

[Christopher Serino](#) received his PhD this January working with his adviser, Professor Bill Klein, on

as a post doctoral associate.

[Elena Strekalova](#) received her PhD this May working with Professor Gene Stanley on the anomalous thermodynamic behavior of liquid water in bulk, nanoconfined, and biological environments. Elena is now a postdoctoral associate in the Department of Civil and Environmental Engineering at MIT, where she applies the density functional theory to understand disordered mesoporous materials, such as cement.

[Andrew Strikwerda](#) received his PhD this May working with Professor Rick Averitt on metamaterials and terahertz spectroscopy. He will continue this work in a postdoctoral position at Denmark Technical University with Professor Peter Uhd Jepsen.

[Joel Tenenbaum](#) received his PhD this May working with Professor Gene Stanley on applications of statistical physics to seismic, financial, and literary data. He has taken a teaching position at BU's School of Management starting in the fall.



Graduates Tyler Dunn and Mark Dickison at the doctoral hooding ceremony in May

perimental postdoctoral opportunities in the Chicago area.

[James Mc Nerney](#) obtained his PhD this May working with Professor Doyne Farmer (now at Oxford University), Professor Sid Redner, and Professor Jessika Trancik (now at MIT), studying evolution of technology prices. He will continue on to a postdoctoral position in the Engineering Systems Division at the MIT working with Professor Trancik.

models of mechanical systems with damage and defects. He is currently a technical staff member at MIT Lincoln Laboratory.

[Jason St. John](#) earned his PhD early in April with Jim Rohlf for his work with the Compact Muon Solenoid experiment at CERN's Large Hadron Collider. Although he looked for undiscovered particles where no one had ever been able to look before, they weren't there. Jason will continue to hunt them

Where Are They Now?

We recently conducted a survey of our PhD graduates from the past 5 years. Here's what we found:

[Kevin Black](#) (PhD 2005) is an Assistant Professor in the Boston University Physics Department.

[Hui Fang](#) (PhD, May 2005) is a postdoc at Nankai University.

[Sarosh Fatakia](#) (PhD, May 2005) is a research associate at the University Of Pittsburgh Department Of Developmental Biology.

[Chung-Yuan Lin](#) (PhD, May 2005) is a Professor at National Chiao Tung University.

[Eduardo Lopez](#) (PhD, May 2005) is a Research Fellow in Complexity Science at Oxford University.

[Zhi Chen](#) (PhD, Jan 2006) is a postdoc at the University of California, Irvine.

[Maryam Farzaneh](#) (PhD, Jan 2006) is an Assistant Professor at Kenyon College.

[Lorenzo Feligioni](#) (PhD, Jan 2006) is a postdoc at CPPM Center of Particle Physics Marseille.

[Joseph Howard](#) (PhD, Jan 2006) is a systems engineer at Raytheon in Sudbury, MA.

[Kaushik Matia](#) (PhD, Jan 2006) works at Barclay's Bank.

[Shouyong Peng](#) (PhD, Jan 2006) is a bioinformatician at the Dana-Farber Cancer Institute.

[Claudio Castelnovo](#) (PhD, May 2006) is an Assistant Professor at Royal Holloway University.

[Yan Yin](#) (PhD, May 2006) is an Assistant Professor at the Chinese Academy of Science.

[Jonathan Celli](#) (PhD, Jan 2007) is a postdoc at Massachusetts General Hospital.

[Scott Clark](#) (PhD, Jan 2007) is a software data administrator at Ab

Initio Software Corporation.

[Adam Martin](#) (PhD, Jan 2007) is a postdoc at Fermilab.

[Ariel Michelman Ribeiro](#) (PhD, Jan 2007) is a research analyst at the Federal Aviation Administration.

[Vishal Sood](#) (PhD, Jan 2007) is a postdoc at the University of Lausanne.

[Sameet Sreenivasan](#) (PhD, Jan 2007) is a postdoc at RPI.

[Federico Vazquez](#) (PhD, Jan 2007) is a tenured research scientist at CONICET-IFLYSIB at the National University of La Plata, Argentina.

[Johan Nilsson](#) (PhD, May 2007) is a postdoctoral researcher at the University of Gothenburg, Sweden.

[Aaron Santos](#) (PhD, May 2007) is a visiting assistant professor at Oberlin College.

[Aaron Schweiger](#) (PhD, May 2007) is vice president at SJ Levinson, NY.

[Wei Wang](#) (PhD, May 2007) is a postdoc at the College of William and Mary.

[Yiyi Wang](#) (PhD, May 2007) is a senior engineer in the IBM Microelectronics Division.

[Daoxin Yao](#) (PhD, May 2007) is a professor at the Sun Yat-sen University School of Physics & Engineering.

[Sijung Yun](#) (PhD, May 2007) is a postdoc at the National Institutes of Health/National Cancer Institute.

[Jason Amsden](#) (PhD, Jan 2008) is a postdoc at Tufts University.

[Amitabha Das](#) (PhD, Jan 2008) is a research associate with the University of Arizona and works at Fermilab.

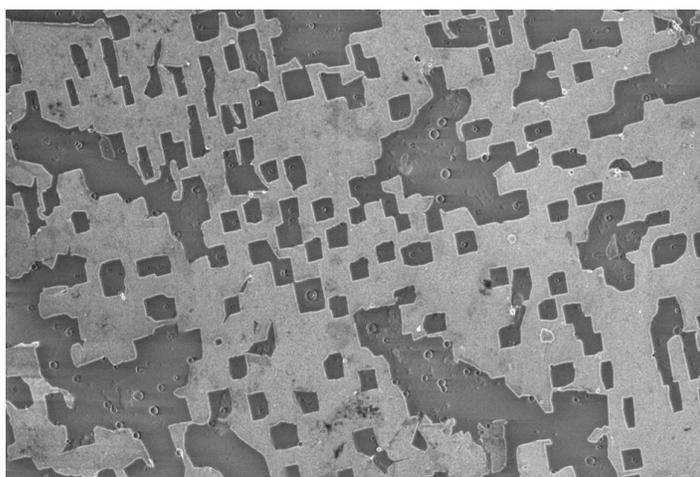
[Dongfeng Fu](#) (PhD, Jan 2008) is a D.E. Shaw Co.

[Pradeep Kumar](#) (PhD, Jan 2008) is a postdoc at The Rockefeller University.

[Timothy Learmonth](#) (PhD, Jan 2008) is the director of advanced development at TruTag Technologies.

[Yongsheng Liu](#) (PhD, Jan 2008) is a postdoc at the Boston University Physics Department.

[Zhonghua Ma](#) (PhD, Jan 2008) is a postdoc at the NYU Chemistry



A scanning electron microscope image of graphene on silicon dioxide (*Goldberg*)

Department.

Tuhin Roy (PhD, Jan 2008) is a research associate at the University of Washington.

Zhenhua Wu (PhD, Jan 2008) is a postdoc at the Harvard University School of Public Health.

Limei Xu (PhD, Jan 2008) is a Professor at Peking University.

Yufeng Zhang (PhD, Jan 2008) is an Assistant Professor at Xiamen University.

Xiaobo Huang (PhD, May 2008) is a postdoc at Argonne National Lab.

Alfonso Lam Ng (PhD, May 2008) is a postdoc at the University of California, Irvine.

Minghai Li (PhD, May 2008) is a postdoc at Clark University.

Ka Ming Tam (PhD, May 2008) is a postdoc at Louisiana State University.

Guiti Zolfagharkhani (PhD, May 2008) is a scientist at Sand 9.

Yiping Chen (PhD, Jan 2009) is a bond investment manager at HFT Investment Management in Shanghai.

Yu Chen (PhD, Jan 2009) is a senior research engineer at IME, Singapore.

Leyla Colakerol (PhD, Jan 2009) is an assistant professor at the Gebze Institute of Technology.

Mehmet Dogan (PhD, Jan 2009) is a senior research scientist at Science Research Laboratory, Inc.

Joel Kralj (PhD, Jan 2009) is a postdoc at the Harvard University Chemistry Department.

Andrew Walsh (PhD, Jan 2009) is a program manager and senior research scientist at Science Research Laboratory, Inc.

Xihua Wang (PhD, Jan 2009) is a postdoc at the University of Toronto.

Zhenyu Yan (PhD, Jan 2009) is a postdoc at the Harvard Univer-

sity School of Public Health.

Ronald Babich (PhD, May 2009) is a postdoc at NVIDIA, a computer graphics company.

Fanny Dufour (PhD, May 2009) is a postdoc at the University of Geneva.

Chang-Yu Hou (PhD, May 2009) is a postdoc at Cal Tech.

Maksim Kitsak (PhD, May 2009) is a postdoc at the Univer-

Kipton Barros (PhD, Jan 2010) is a postdoc at the Center for Nonlinear Studies, Los Alamos National Laboratory.

Rachele Dominguez (PhD, Jan 2010) is an Assistant Professor at Randolph Macon College.

Utku Kemiktarak (PhD, Jan 2010) is a guest researcher at NIST, Washington.

Jie Lou (PhD, Jan 2010) is a



Graduate students Jiayuan Luo, Kaca Bradonjic and Erica Saint Clair at a Women in Physics gathering

sity of California, San Diego.

Marco Mazza (PhD, May 2009) is a postdoc at the Technical University of Berlin.

Le Qiu (PhD, May 2009) is an instructor in obstetrics, gynecology and reproductive biology at the Beth Israel Deaconess Medical Center.

Fengzhong Wang (PhD, May 2009) is a postdoc at the Boston University Center for Polymer Studies.

Jun Zhou (PhD, May 2009) is in a computer science graduate program at Suffolk University, as well as being a software engineer at Jiayi, Inc.

postdoc at the University of Tokyo.

Arnab Majumdar (PhD, Jan 2010) is a postdoc at the Boston University Biomedical Engineering Department.

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[Eric Pinnick](#) (PhD, May 2011) is a research scientist at Lincoln Labs.

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Graduate students enjoying the department's annual holiday party