

# The DØ Top Quark Discovery PRL

## DØ PRL Timeline

• Run Ia: Data from 1992 to May, 1993. Run Ib data taking resumes early in 1994.

• By January 1995, both experiments have their eyes on the upcoming spring conferences (LaThuile, Moriond) for announcing the discovery of the top quark.

Jan. 17, 1995 - Editorial Board and drafting committee formed to produce top quark discovery paper.

Jan. 29, 1995 - First draft of top discovery paper (long paper).

Feb. 15, 2005 - Version 0.5 of long paper.

Feb. 16-17, 2005 - Top quark analysis review. DØ top quark discovery analysis is final.

Feb. 17, 2005 (Friday) - CDF notifies laboratory of its intention to submit top quark discovery paper to PRL within one week. DØ decides to expedite its normal editorial process for a simultaneous PRL submission.

Feb. 18-19, 2005 (Saturday, Sunday) - PRL length paper drafted, including final results.

Feb. 20, 2005 (Monday) - Top discovery PRL is posted to DØ collaboration for an abbreviated 24 hour collaboration review.

Feb. 21, 2005 (Tuesday) - Comment deadline. Over 200 DØ collaborators submit comments.

Feb. 22, 2005 (Wednesday) - Editorial board meets from morning until night to review collaboration comments and revise PRL draft.

Feb. 23, 2005 (Thursday) - PRL draft is finished. Final decision to proceed with submission.

Feb. 24, 2005 (Friday, 11:00 a.m.) - Top discovery paper submitted electronically to PRL.

Mar. 2, 2005 (Thursday) - Public announcement of top quark discovery; press conference.

I like the new version of the PRL much more than the old one. Mainly I like the strong and clear statements for the top discovery.

The usual "at D0" is omitted from the title??

p3, 3rd para, last sent: The grammar is busted.

Why is the discrepancy between the theoretical cross section and the measured one so high?

I understand (since I see most of the comments too) that size of the job that you will have in coming to grips with all the comments being sent by the collaboration. In fact the paper is very good, and so far has been getting better with successive versions -- and I have the greatest confidence in your ability to choose the variants which make the best sense and to modify accordingly. It has been a great job, and I think we see clearly now that we do converge!

The 2D plot adds nothing to the paper, except some confusion. (As I predicted!)

To conclude, I think this is a very well written paper and we should publish it as soon as possible!

On page 4, paragraph 4 : This whole paragraph could use a bit of sprucing up and clarification.

Figure 3 looks NAKED. It probably can use some text.

The paper seems to contain sufficient substance to back the strong claim that it makes.

In figure 3, the "dotted" line actually looks "dashed".

Submit this paper after revision (if there was any doubt).

While I have some reservations about the presentation, I find the paper basically OK - logical, complete ... The presentation of the data is poor from a pedagogical standpoint.

I believe it will be rather difficult for even good high energy physicists to understand without modification.

Top Marathon  
Feb. 16-17, 1995  
Welcome!

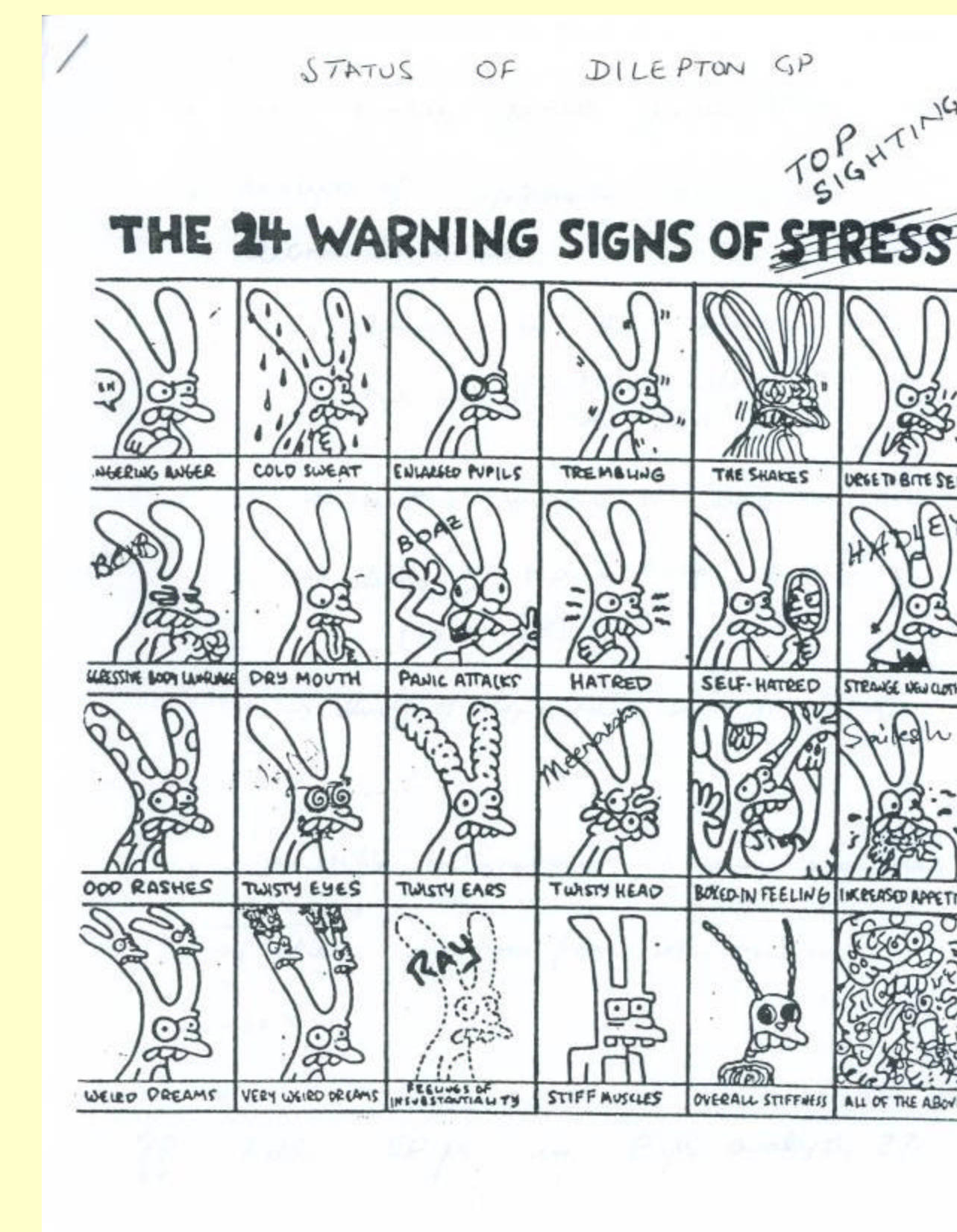
Paul,  
In a crude attempt at subtlety, I've put the paper and 'final' tables in  
PRJSROOT27: [QCD\_3.CUCKOO]PAPER\_V0-5.FS  
PRJSROOT27: [QCD\_3.CUCKOO]TABLE\_II.EPS  
PRJSROOT27: [QCD\_3.CUCKOO]TABLE\_IV.EPS  
Meena thought that putting anything in top\_doc is equivalent to handing it to cdf. This is a compromise (the directory name comes from Mont/Blazey...don't ask!)

Dear Collaboration,

Matters on the top search analysis continue to move very rapidly.

In a phone call yesterday afternoon at 16:20 Chicago Standard Time, I received a phone call from John Peoples telling us that CDF had visited him and had given him a draft paper which is intended for submission after 1 week. ... and hence the clock had started. I reaffirmed the time explicitly. I advised him that it was likely that by that time D0 would have a publication ready for submission\*\*. He told me that the then current preference for a public presentation, he presumes of the two analyses, was March 3.

(\*\* We felt able to do this based on prior discussion and on hearing the views of many during Thursday and Friday a VERY successful 2 day review of the analysis and the explicit affirmation of that view by the Editorial Board in a Meeting yesterday afternoon.)



Herbert Greenlee  
Top Turns Ten  
Oct. 21, 2005