Physics Simulation and Modeling
Project Review

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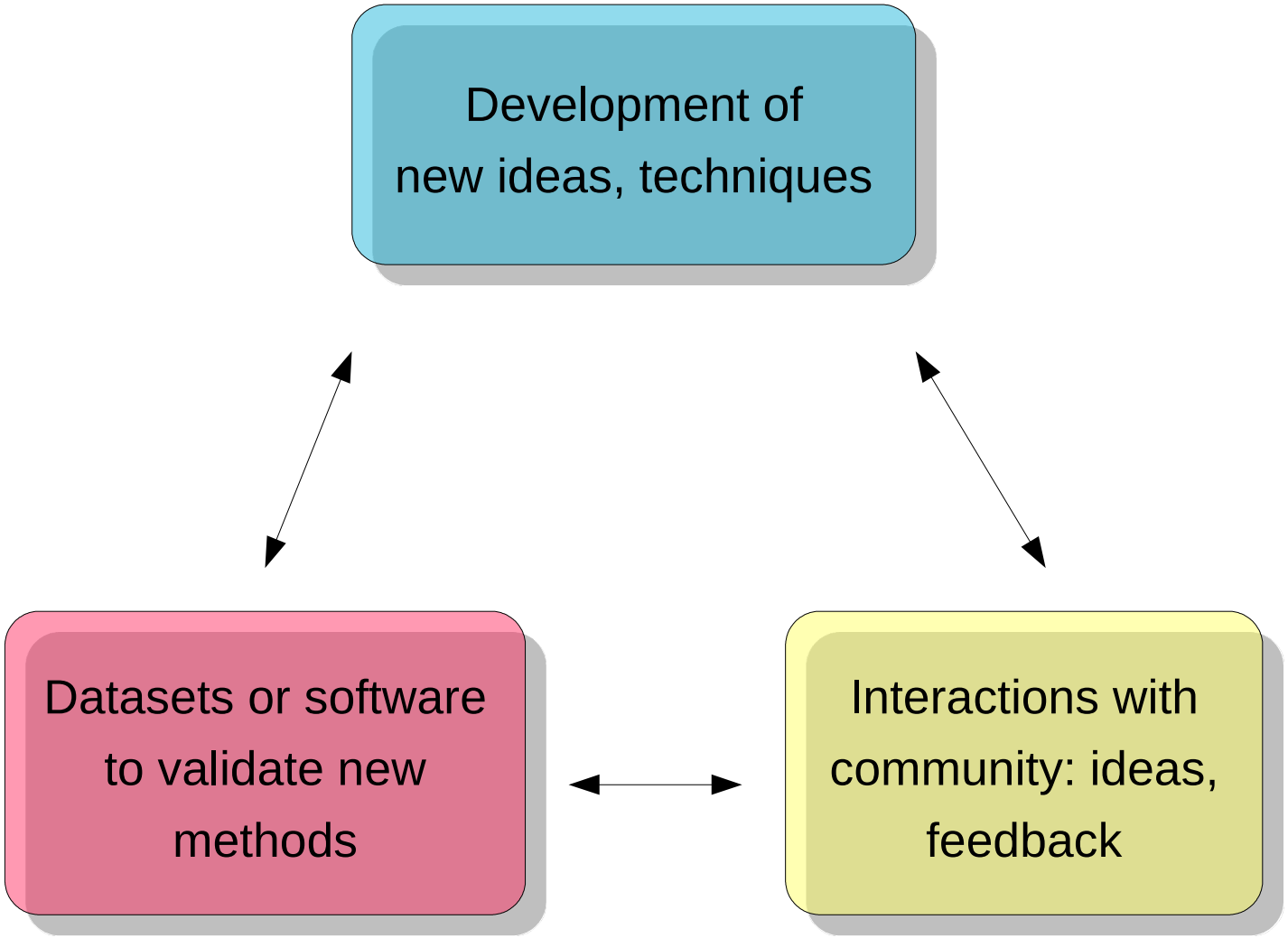
26 Sep 2006


Development of
new ideas, techniques
Datasets or software
to validate new
methods
Interactions with
community: ideas,
feedback

PATRIOT

- Matched Datasets
- TeV2/LHC Comparisons

RESEARCH

- Matching Methods
- Pythia development
- Pythia tunes
- Analysis Methods (BARD)
- etc

RESOURCE

- Top Mass uncertainties
- Monte Carlo questions
- QCD and New Phenomena

PATRIOT

- Transitioned to Condor job submission
  - Local Grid jobs
  - OSG still hit-and-miss
  - Consulted with Burt Holzman
- More requests!
  - Started 2nd generation of W/Z+jet datasets
    - comparing TeV2 and LHC kinematics

RESEARCH

Physics Tools

PYTHIA

- v6.404
- cvs/svn @ hepforge.cedar.ac.uk
- manual publ. in JHEP (500+pp)

Quaero/BARD

- automated interpretation of anomalies
- interfaced to CDF (via Knuteson)

HepForge > SVN / CVS > CVS - CEDAR - Mozilla Firefox

File Edit View Go Bookmarks Tools Help

http://hepforge.cedar.ac.uk/hf/vc/cvs/pythia6/?only_with_tag=MAIN

Fermi Linux | Fermilab | FermiLinux | Linux Distros

Fermilab Webmail | HepForge > SVN / CVS > CVS ...

CEDAR

CEDAR | HepData | JetWeb | HepForge | HepML

- Home
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HepForge version control

[pythia6] Project Root: pythia6 Go

Current tag: **MAIN**
Files shown: **0**

File ▲	Rev.	Age	Author	Last log entry
pythia6/				

Show files using tag: MAIN Show

Show all files

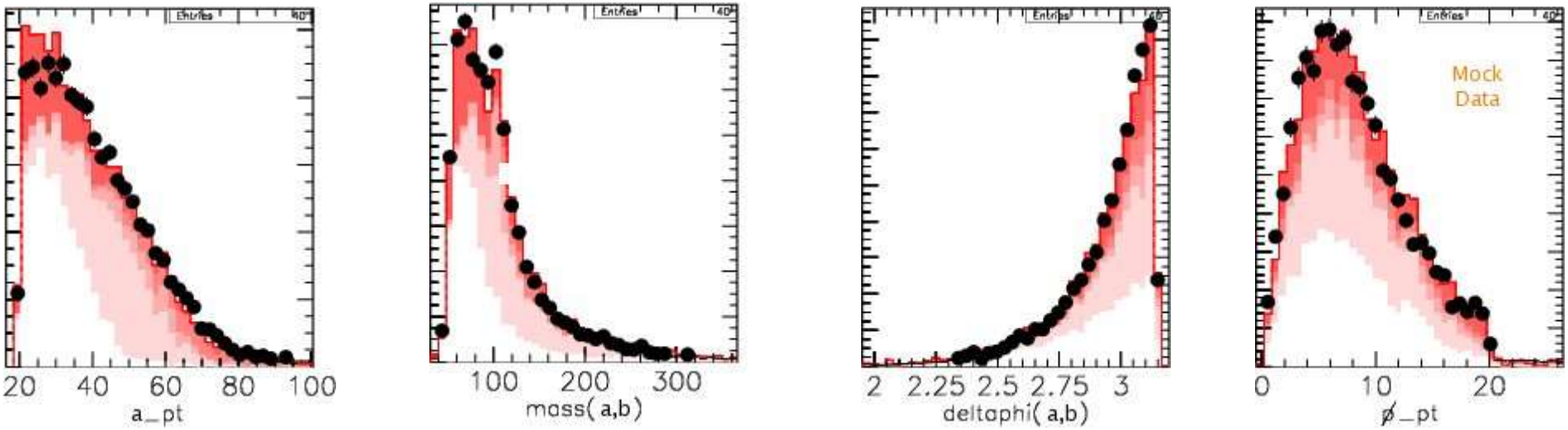
hepforge@cedar.ac.uk
Powered by ViewCVS 1.0-dev

W3C XHTML 1.0

Taking advantage of existing resources to facilitate code management.

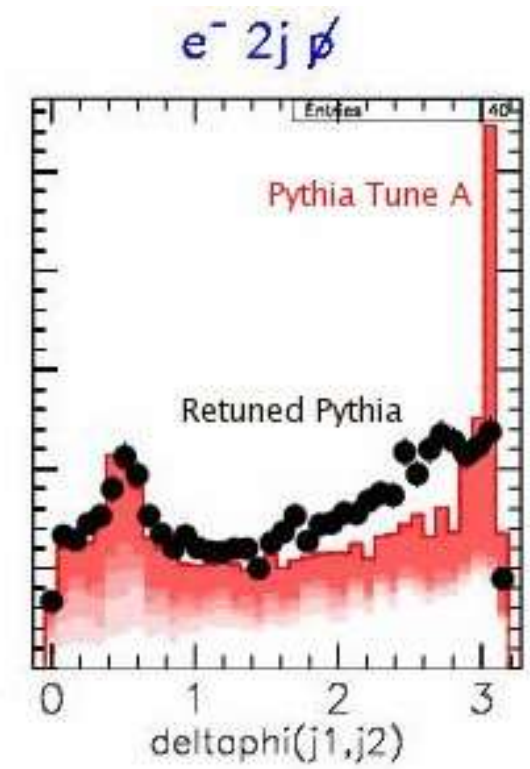
Done

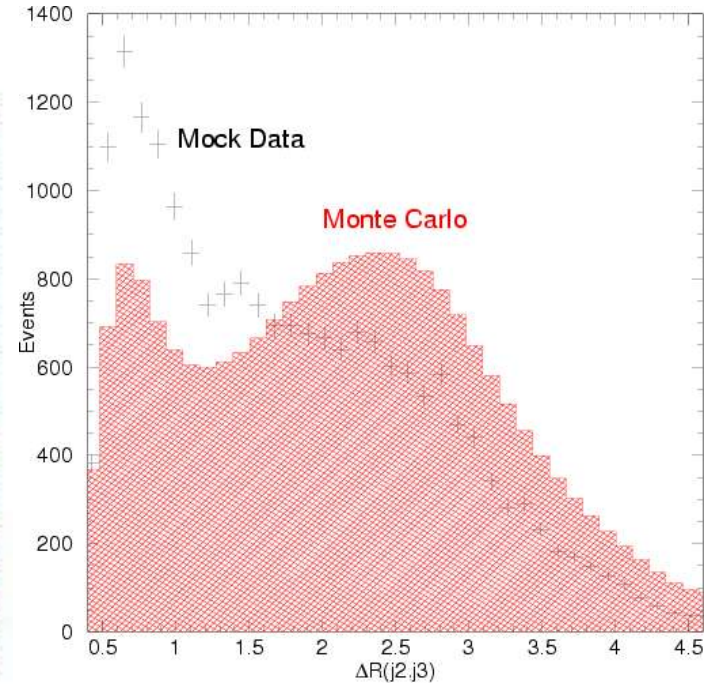
Automatic comparison of many distributions:



Monte Carlo issues we identified and addressed first.

How does this fit into early CMS Monte Carlo validation?





I should be pushing combination of Susy and Higgs results from CDF/D0

Advertisement of BARD has recruited several Harvard students (Arkani=Hamed)

Community service

Tev New Phenomena WG,

Workshop organization,

Peer review, Talks,

Funding initiatives,

LHC Olympics,

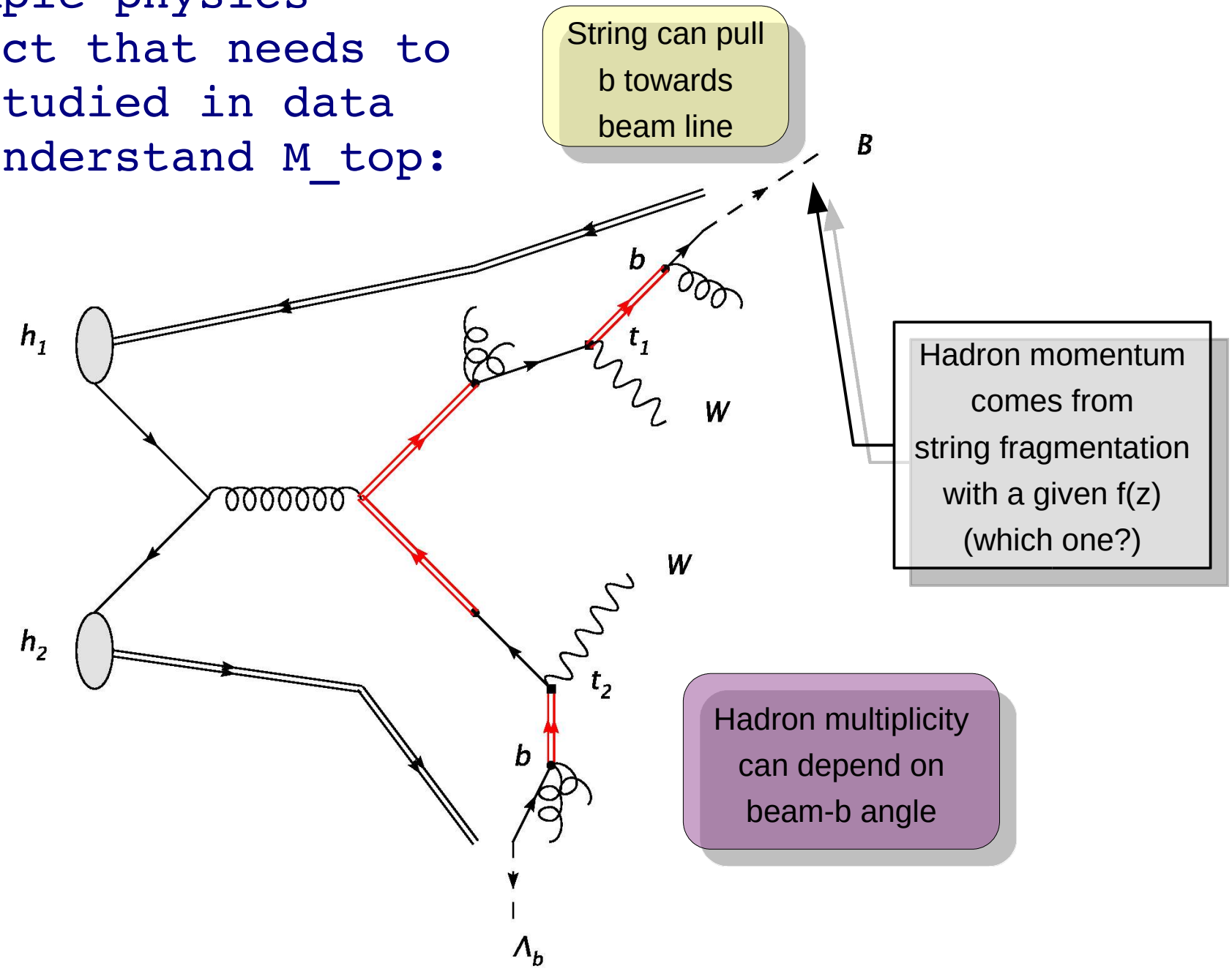
Triumf Summer School,

etc.

Final stages of editing (and writing) TeV4LHC report

What I did (and didn't do) on my summer vacation

Example physics effect that needs to be studied in data to understand M_top:



CONCLUSIONS

- Patriot project is not separable from Research or Resource
- The project is not physics or computing alone
- Lack of people trained to do this
- Want to pursue opportunities to add a physicist
  - postdoctoral level?
  - staff level?
  - in conjunction with theory/lattice/astro?
  - external funding (LHC Theory Initiative)?