

# "TOP QUARK" MEETING

IIHE

24 november 2008

- introduction of people involved
- why top quark physics @ LHC?
- aim of the meeting
- agenda

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## PEOPLE INVOLVED (alphabetical)

Catherine Vander Velde (staff)

Eric Chabert (post-doc)

Genit Van Onsem (master)

Gregory Hammad (pre-doc)

Ilaria Villella (pre-doc)

Jorgen D'Hondt (staff)

Joris Maes (pre-doc)

Leam Lynx (master)

Old members: Jan Heyninck & Steven Lowette

Extra: Maryam, Nadjieh, Alexis

Michael Maes (master 2<sup>o</sup>)

Olivier Devroede (post-doc)

Petra Van Mulders (pre-doc)

Robbe Vansintjan (master)

Stéphanie Beaudeau (post-doc)

Stijn Blyweert (master 2<sup>o</sup>)

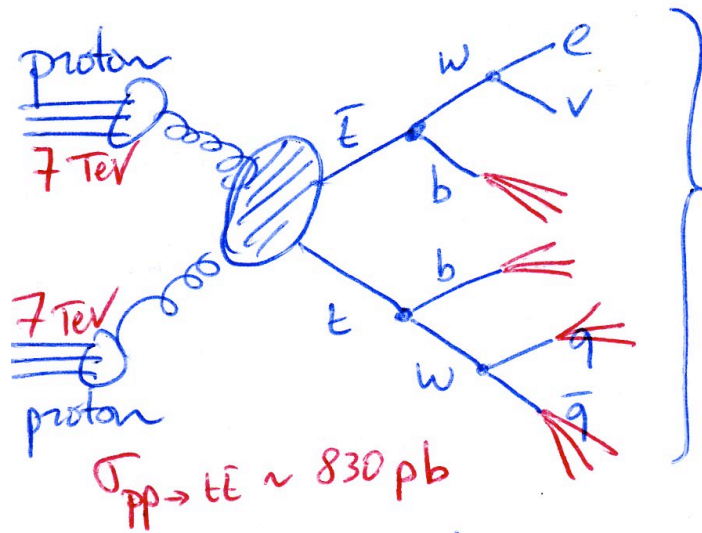
Veerle Vanderkrieghen (master)

Volker Adler (post-doc)

# WHY TOP QUARK PHYSICS @ LHC

The LHC is a discovery machine, but before discovery one has to settle on the "known" physics ... the top quark processes are less known in the Standard Model

(discovery @ Tevatron in 1995)



4 jets  $\oplus$  1 lepton  $\oplus$  1 neutrino

...  $\oplus$  proton remnant ("underlying event")

...  $\oplus$  more pp collisions from same bunch crossing ("pile-up")

$\Rightarrow$  test the SM predictions of these complex processes

$\Rightarrow$  understand this process in detail because it is the main background for most searches beyond the SM

## AIM OF THE MEETING

- Bring together all people connected to the iIHE working on top quark physics or related topics (everybody welcome of course)
  - Discuss the progress of all current analyses which are being prepared to study the first data
  - Discuss new ideas & possibilities for the future
- ... and above all, get to know each other!

# AGENDA

- 9:00 Introduction (J. D'Hondt)  
9:15 Information ( " )  
9:45 Particle Flow versus Calo jets (Michael)  
10:15 Calibrating b-quark jets with a muon (Stijn)  
11:00 Estimating Jet Energy corrections (Petra)  
11:30 Estimating b-tagging efficiencies (Joris)

## LUNCH

- 14:00 Spin correlations in top quark events (Flavia)  
14:30 Controlling QCD background (Gregory)  
15:00 New physics in top topologies (Eric)  
15:30 Using the GRID & T2 computing center (Olivier)  
16:00 Future thoughts (Jorger)