

Multiple Interactions and Underlying events

**Welcome to DESY and
Hamburg**

Goals of this meeting

- summarise state of the art
- define a program for next year to have best preparation for LHC
- obtain best ever understanding of QCD at highest energies

- try to combine efforts in
 - experimental area
 - simulation area
 - theory/phenomenology
- try to find a common language in theory and experiment
- try to develop common activity
 - experiments: HERA/TeVatron/RHIC/LHC
 - theory: collinear/kt-factorisation/color glass/dipole picture
 - simulation: Monte Carlos
- at the end of this meeting we should set up a skeleton program (also for the HERA-LHC workshop proceedings), assigning topics with names ...

Not a politically correct meeting ...

- no effort to have a proper representation of all groups
- just a few people invited ...
- not the aim to have formal presentations - more discussions
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- photographs of blackboard
- available on the web, afterwards

Program for 2 days

- Friday:

09:00 - 11:00

Experimental provocateur intro :

R. Field

Discussion

11:00 - 12:30

Monte Carlo provocateur intro:

T. Sjostrand

14:00 - 16:00

MC discussion

16:00 - 18:30

AGK provocateur intro:

J. Bartels

AGK discussion

19:30 Dinner in Blaue Blume, Altona

- Saturday:

09:00 - 12:00

kt-factorisation and color glass

provocateur intro: E. Iancu

kt factorisation discussion

12:00 - 13:00

Final Goals and plans

14:30 - 17:00

Time for more discussions

Experimental Issues

- 09:00 - 11:00 Experimental provocateur intro: R. Field
- Discussion with 5 min contributions
 - what do we know about the soft underlying event?
 - what do we know about hard multiple interactions
 - what about correlations ?
 - what is needed for LHC predictions ? HERA and/or Tevatron ?
 - what are the measurements needed to better understand MI ?
 - can HERA contribute ?
 - can still more be done at the TeVatron ?
 - issue of tuning etc

Monte Carlo Issues

- 11:00 - 12:30, 14:00 - 16:00
Monte Carlo provocateur intro: T. Sjostrand
 - get a clear overview of the status-quo:
 - can we agree that the MCs (PYTHIA, JIMMY) are the best we can have at the moment ?
 - if not, what is missing ?
 - what would be the next steps to have a better implementation of MI ?

AGK Issues

- 16:00 - 18:30 AGK provocateur intro: J. Bartels
- AGK, color etc
 - establish the connection between the theory and the models:
 - are AGK rules satisfied ?
 - is color of the multiple chains treated "correctly" ?
 - how are interference effect included ?
 - how to deal with diffraction ?

kt-factorisation and color glass

- Saturday
9:00 - 12:00 kt-factorisation and color glass provocateur intro: E. Iancu
- is collinear factorisation appropriate for MI ?
- if not, is kt-factorisation better ?
- if not, what else ?
- what about kt-factorisation breaking ?
- how to make the connection to saturation, diffraction and the color glass?

Final discussion

- Final discussion and next steps:how to proceed

Conference Dinner

- Conference Dinner at Blaue Blume, HH-Altona
 - Friday, 18. May. 2007, 19:30
 - Maps available outside
 - Reachable by S-Bahn (Altona), Bus (Nr 3)