

QCD Meeting 4/18/02

Back to a crowded schedule, so please try to stay within your time.

1. News/announcements/POW Joey/Jay 10'

Run 2

2. Update on Run 2 jet algorithm studies 20'

Matthias Tonnesmann

3. The usual Rob Snihur 10'

4. Validation Frank Chlebana 10'

5. Hadron TDC cosmic filter: status
Igor Gorelov 10'

Run 1

Blessings

6. Charged particle multiplicities in quark and gluon jets Alexandre Pronko 25'

Preview

7. APS Preview Igor Gorelov.

Papers of the Week

- [hep-ph/0204179](#), A QCD Primer, G. Altarelli; 4 lectures on intro to and applications of perturbative qcd
- [hep-ph/0204068](#), QCD and Weak Interactions of Light Quarks, J. Bijnens, this review contains an overview of strong interaction effects in weak decays starting with a historical introduction. It contains a short overview of semileptonic decays and their relevance for measuring CKM matrix elements. The main part is devoted to the theoretical calculation on nonleptonic matrix elements relevant for K^0 - \bar{K}^0 mixing and $K \rightarrow \pi\pi$ decays. It concludes with a short summary of rare kaon decays.
- [hep-ph/0204127](#), Parton Distribution Functions suitable for Monte-Carlo event generators, J. C. Collins, X. Zu, $\overline{\text{MS}}$ pdf's are not appropriate for Monte Carlos since scheme is based on inclusive observables; difference only important at NLO

Papers of the Week

- [hep-ph/0204113](#), Next-to-leading order numerical calculations in Coulomb gauge, M. Kramer and D. E. Soper, Calculations of observables in quantum chromodynamics can be performed using a method in which all of the integrations, including integrations over virtual loop momenta, are performed numerically. We use the flexibility inherent in this method in order to perform next-to-leading order calculations for event shape variables in electron-positron annihilation in Coulomb gauge. The use of Coulomb gauge provides the potential to go beyond a purely order α_s^2 calculation by including, for instance, renormalon or parton showering effects. We expect that the approximations needed to include such effects at all orders in α_s will be simplest in a gauge in which unphysically polarized gluons do not propagate over long distances.

News

- ICHEP abstracts due at beginning of May (May 1)

- ◆ Please send your abstract to:

Joey

Jay

Doug Glenzinski

Doug will submit the abstracts.

Further information is below:

- * --- web page: <http://www.ichep02.nl/index-new.html>
- * --- abstract submission: follow link on left to Abstracts->Submission
- * --- Required information for abstract submission:
 - contact person:
 - institute:
 - email:
 - Title:
 - Author:
 - Experiment:
 - First Choice Parallel Session:
 - Second Choice Parallel Session:

Abstract ideas

- Underlying event: Rick
- Photons
- Diffractive physics
- Jet cross sections (review of Run 1 results + application of new algorithms on Run 2 data)
- Jet fragmentation
- Jet algorithms

News

- Next installment of Monte Carlo workshop to be held next Thursday April 25