Status of the « Detectors and Collaborations » and « Data taking and MC production » chapters

Annecy PBF Meeting, June 30th 2011

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LABORATOIRE DE L'ACCÉLÉRATEUR LINÉAIRE

- Status of the « Detectors and Collaborations » chapter

- Status of the « Data taking and MC production » chapter
  $\rightarrow$ On behalf of Fabrizio Bianchi who's attending a separate meeting

« Detectors and collaborations »

- Preliminary outline posted months ago – chapter size still to be defined: 5+10+10 pages!?

- Single editor on the BaBar side – will likely get help for proofreading

- Lack of contact with the Belle editors
  $\rightarrow$ Will assume the outline is validated; start writing the BaBar part in July – time permitting

- In BaBar we are preparing a new NIM paper summarizing the 'factory mode' data taking
  $\rightarrow$ Existing NIM (2002) only goes up to the beginning of the data taking
  - Current draft exceeds 100 pages; convergence expected for the end of the year

- Material for the PBF will be extracted from the two BaBar NIM papers
  - Coupling between the new NIMU progress and the PBF chapter
  $\rightarrow$ Should not introduce any significant delay

« Data taking and MC production »

- Outline posted by Fabrizio

- 3. Data processing and Monte Carlo production summary
- 3.1.   Introduction: general organization of the data taking, data reconstruction and MC production (1 page)
- 3.2.   Data taking (section 3.2 has to be written in coordination with the editors of the detector session)
- 3.2.1. Integrated luminosity vs. time; lumi counting
- 3.2.2. Shutdowns; splitting of the data taking into Runs
- 3.2.3. Major hardware/online upgrades which modified the quality of BaBar data
- 3.2.4. Major hardware/online upgrades which modified the quality of Belle data

- 3.3.   Data Reconstruction
- 3.3.1. Introduction (generalities on detector data reconstruction, 2 pages)
- 3.3.2. The BaBar prompt reconstruction (description of the 2-step BaBar prompt reconstruction, 1 page)
- 3.3.2. The Belle data reconstruction (description of Belle reconstruction, 1 page)

- 3.4.   Monte Carlo Production
- 3.4.1. Introduction (generalities on simulation at the B Factories, 2 pages)
- 3.4.2. Event Generators (description and references on the event generators, 2pages)
- 3.4.3. Detector Simulation (Geant4, etc. 2 pages)
- 3.4.4. MC production systems (description of MC production systems, 1 page)
- 3.4.5. Differences between BaBar and Belle simulations(2 pages)

- 3.5.   Event skimming
- 3.5.1. Introduction: purpose of event skimming (1 page)
- 3.5.2. Skimming in BaBar (2 pages)
- 3.5.3. Skimming in Belle (2 pages)

- 3.6.   Data quality & B-counting
- 3.6.1. The control of data quality (summary of the problem and of the solutions, 2 pages)
- 3.6.2. B-counting techniques (2 pages)
- 3.6.3. Differences between BaBar and Belle approaches (2 pages)

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« Data taking and MC production »

- Limited contact with Belle editors

- Chapter coupled with the NIM paper update on the BaBar side

- Outline to be committed to SVN soon

- Plan is to start writing the BaBar part of this chapter asap – probably by Fall
  $\rightarrow$ Need to identify additional contributors