Warwick Workshop Summary

David Brown, LBNL

SuperB Computing Meeting 22 April 2009

Warwick Workshop

- Workshop on physics for TDR
 - followup of Valencia workshop
 - 67 participants (many theorists)
- 6 'vertical', 3 'horizontal' groups
- 3 sessions on 'tools'
 - FastSim overview
 - FastSim tutorial
 - Physics tools (used in FastSim)
- agenda at http://agenda.infn.it/ conferenceDisplay.py?confld=1118

Computing Issues

- SuperB simulation will soon reach TDR level
- Physics needs are imminent
 - physics case/benchmarking
 - detector optimization
- Potentially large productions
 - generics production (physics background)
 - multiple geometries
 - machine backgrounds
- We need to make a smart, defensible request for computing resources

- Is signal mode production necessary?
 - > 1M events/cpu-day with FastSim

Answer: groups are happy making their own signal MC

- Is signal mode production necessary?
 - > 1M events/cpu-day with FastSim
- How many generics (B, udsc) are needed?
 - can we use hadronic cocktail for BReco?
 - is 1 detector geometry sufficient
 - can we filter events?

Answer(s): ~ I fb⁻¹ sufficient multiple detector geometries needed generator filtering problematic

- Is signal mode production necessary?
 - > 1M events/cpu-day with FastSim
- How many generics (B, udsc) are needed?
 - can we use hadronic cocktail for BReco?
 - is 1 detector geometry sufficient
 - can we filter events?
- What output format is needed?
 - is BetaTuple sufficient?

BetaTuple + analysis tuples are sufficient T-Particle persistence might be useful eventually

- Is signal mode production necessary?
 - > 1M events/cpu-day with FastSim
- How many generics (B, udsc) are needed?
 - can we use hadronic cocktail for BReco?
 - is 1 detector geometry sufficient
 - can we filter events?
- What output format is needed?
 - is BetaTuple sufficient?

Who will provide (filter, tuple) code for your mode?

Conclusions

- Physics case for simulation production exists but details are not yet clear
 - Size of samples needed vary greatly
- Some production is clearly necessary
 - (fullsim) background production
 - generic production
- Physics code, contacts needed