Computing Challenges for CBM

• Huge interaction and data rates necessitate real-time event reconstruction and data selection
  – Reduce about 1 TB/s to several GB/s in real time in software
• Basis of the data model is a time slice containing many events
  – No events from hardware trigger; have to be found in software
• Fast 4-D reconstruction algorithms under developments
  – Many achievements, but still some way to go
• Quest for a common online and offline software framework
  – Concurrency needed
  – Common data model allowing time-based and event-based analysis without change of code
  – Make use of the extension of the current FairRoot to FairMQ