Tracker Meeting Minutes

Time: 2024/4/19 10:00 – 12:15

Participants: DONG Mingyi (董明义), FAN Yunyun (樊云云), FU Chengdong (傅成栋), FU Jinyu (付金煜), LI Gang (李刚), 李梦朝, LI Yiming (李一鸣), LI Zhan (李瞻), LIANG Zhijun (梁志钧), GENG Qinglin (耿青林), QI Huirong (祁辉荣), 佘信, SHI Xin (史欣), WANG Meng (王萌), WEI Wei (魏微), YAN Xiongbo (严雄波), ZHAO Guang (赵光)

Minutes: Xin Shi / Zhan Li

* WM
  + We shall consider new ways of recording meeting minutes. Each subgroup will report only new updates. We can decide what will be the topic beforehand.
* FCD: preliminary results of the full simulation with endcap tracking with different phi and r resolution
  + Preliminary conclusion: phi influence on resolution, while r does not.
  + WM suggested to vary spatial resolution parameters one by one ONLY at outer tracker.
* LG/GQL: preliminary results of the fast simulation with silicon inner tracker
  + As tracking performance depends on the range of momentum, we use integrated average dpt/pt^2 for optimization.
  + The average momentum resolution has better performance when the 2nd layer is more inner
* ZG: Update on single hit resolution
  + WM commented that for pixelated TPC, we should focus on optimization of dN/dx measurement.
* QHR: Updates on TPC endcap module and occupancy
* DMY: update on readout electronics design. Need to modify ADC and FPGA next
* LYM: a few updates on CMOS tracker
* LZ: Endcap design with silicon strips.
  + preliminary design of endcap tracker with petal structure
    - LZJ pointed out weighted spacial resolution need ADC on ASICs
  + cost estimation for the barrel and endcap tracker
  + WM suggested to reduce strip pitch to get higher phi resolution
* FYY: No update