

Forward Tracking Disks

The Spanish network for future colliders committed to design (and ultimately construct) the Forward Tracking Disks

Baseline design (200X): DEPFET pixelated disk 1 & 2 + micro-strips in disk 3-7
DEPFET, IEEE TNS, 60, 2 (2013)

Assessment of challenges of forward tracking (JINST 4 (2009), JINST 8 (2013)):

Forward tracking at the next e^+e^- collider part II: experimental challenges and detector design

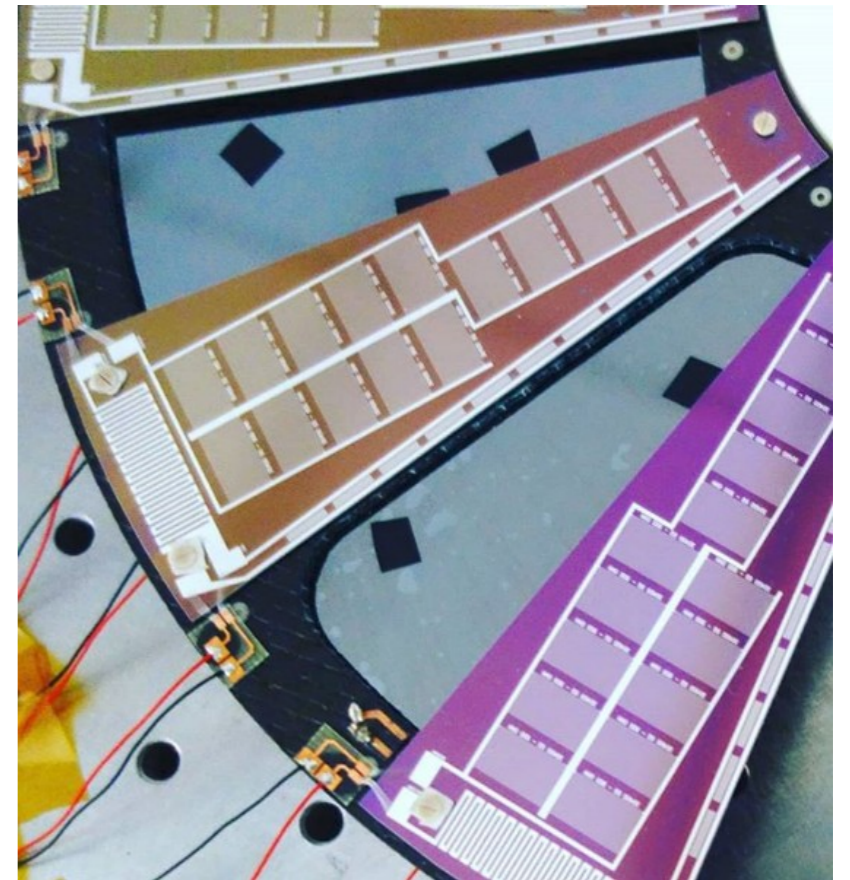
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Detailed studies of supports and thermo-mechanical performance

Possible future evolution (201X):

Simulation studies show that forward pattern recognition and vertexing is somewhat marginal (F. Gaede, R. Pöschl et al.).
CLIC indeed reinforced FTD design (Vos, Dannheim)

Natural evolution to fully pixelated FTD with 7 CMOS disks (robust 3D hits, C. Marinas @ IFIC, synergy with Belle II)
+ outer iLGAD disk (time measurement → PID where there is no TPC, I. Vila @ IFCA, S. Hidalgo @ CNM, synergy with CMS)



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