INFN interests on Si-Tracker



D. Elia for the INFN groups

- participating groups (contacts): Bari (D. Elia), Trieste (G. Contin), Padova (R. Turrisi)
- ongoing activities for ALICE ITS3:
 - ✓ Bari: bending and interconnection studies, development of super-ALPIDE prototypes, test of APTS OP-AMP
 - ✓ Trieste: bending, test and characterization of flat and bent DPTS, preparation of bent APTS SF samples
 - ✓ Padova: test and characterization of APTS SF, setup for testing DPTS under preparation
 - ✓ Bari and Trieste coordinating the ITS3 WP4 "Bending, thinning and interconnections" (D. Colella, G. Contin)
- current involvement/activities in EICSC and tracking WG:
 - ✓ contribution to the EICSC coordination (G. Contin and D. Elia)
 - ✓ eRD111 (since FY22): Forming modules from stitched sensors \rightarrow 30 k\$ for FY23
 - ✓ eRD113: Progress in testing and characterization → 30 k\$ for FY23
 - ✓ gen. R&D: Additive manufacturing of power&data redistribution layers on thin large-area silicon → 49 k\$ for FY23
 - ✓ simulation studies with Fun4All/DD4HEP vs fast simulation, development of Root-based event display (S. Kumar)
- area of interest for the ePIC Si-Tracker:
 - ✓ mainly focused on vertex layers: based on bending/interconnection/prototyping activites for ITS3
 - ✓ general contribution on sensor test and characterization (also connected to the eRD111 targets for this year)
 - → overall effort to be better defined based on effective dedicated man-power growing in the groups