

Activities for upgrades and Future Colliders @ Torino

towards the European Strategy for Particle Physics Update @ 2025-26

Cecilia Borca

- LHC-CMS Phase 2 upgrade on-going: silicon tracker, ECAL, MDT, DT, PPS
- LHC-ALICE upgrade for LS4: mainly ITK
- EIC-EPIC new development on-going
- RD_MUCOL (also UE-MUCOL)
- RD_FCC
- DRD: detector R&D – synergies in CSN1-2-3 and CSN5 (LGAD, MAPS, electronics)

LGAD

- | | |
|----------------|--------------|
| ▷ 4DSHARE | – CSN5 |
| ▷ 4D-Share | – PRIN 2022 |
| ▷ eXFlu-innova | – AIDAInnova |
| ▷ ComplexX | – ERC COG |

Attività FCC– sviluppi 2025

- **Rivelatore IDEA** CDR 2019
 - ➔ ARCADIA FD-MAPS for Vertex and OT
sinergia con ALICE-3
 - ➔ uRWELL & TIGER for muon systems
sinergia con BESIII

Attività EIC-EPIC – sviluppi 2025

- **Rivelatore EPIC**
 - ➔ d-RICH – rivelatore per PID – contributo INFN
R&D su SiPM
 - ➔ dRICH @Torino: ALCOR ASIC – lettura SiPM
ALCOR FE ASIC - sinergia con DARKSIDE

