

DRD4 – WP I: Radiation hard solid state photodetectors with precise timing

- 24 Groups that expressed interest in this area in the questionnaire nr. 3
- ARC, Barcelona, Bari, Bologna, Bucharest, Cambridge, CERN, FBK, Ferrara, Geneva, Genova, Grenoble, GSI?, IHEP-CAS-FPMT, Iowa, Leicester, Ljubljana, Maryland, Melbourne, Monash, Oxford?, Perugia, Padova, RAL
- Work programme: studies and development of novel solid state photodetectors
- Experiments: ARC, LHCb, ALICE, DUNE, EIC, Belle II, etc.
- This work package is addressing the following themes:
 - DRDT 4.1 : Enhance the timing resolution and spectral range of photon detectors\
 - DRDT 4.2 : Develop photosensors for extreme environments

WPI Tasks:

- Task WP4.1.1: **New configurations and new modes SSPD**
 - study new technologies, ultra-high granularity, and integration of SiPMs with readout electronics.
- Task WP4.1.2: **Fast Radiation hard SiPMs**
 - radiation hardness in different harsh conditions
- Task WP4.1.3: **Cryogenics SSPD / SiPMs** for the cryogenic operation of noble liquids
 - need to discuss the separation of RD areas with DRD2, meeting planned
- Task WP4.1.4: **Timing Performance** - *Study of SSPD timing performances using appropriate readout electronics*
- Task WP4.1.5: **Blue sky research: novel sensor materials**