Solid State Detectors Session Summary

Eva Vilella

(4th June 2021)

vilella@hep.ph.liv.ac.uk

PPTAP – Solid State Detectors – Talks

- Session on 3rd June 13:30 – 15:00 h
  - **Silicon sensors R&D (Gianluigi Casse)**
    - Several options on the menu (hybrids, monolithics and other sensors)
    - But with major challenges to solve on key areas (time resolution, speed, granularity, radiation tolerance and mass)
    - Manufacturers and strategy to follow –example of SiPM R&D for physics but with direct industrial interest (read money input)
  - **Diamond sensors R&D (Alexander Oh)**
  - **Detector design dependencies (Iain Sedgwick)**
    - Design tools & foundry access
    - IP development, testing & quality control
    - Staff
  - **Europractice (Mark Willoughby)**

PPTAP – Solid State Detectors – Discussion

- **Very much focussed around the ASIC design community in the UK**
  - How many ASIC designers we have vs how many we need
  - Lack of available personpower
  - Other countries have different funding programmes that allow for more continuity
  - Centralised vs distributed model (no conclusion)
- **We lost the plot a bit… How do we plan the R&D for the next years?**
  - We did not discuss what we want to do!!!
  - We mostly complained about what we do not have
  - Suggestion to propose a strategy that involves a much larger community, getting moneys also from industry (SiPM example)
  - Suggestion to have a discussion with UKRI + STFC + users to get industry on board

PPTAP – Solid State Detectors – The After-Discussion

- People are aware of synergies between the discussions on Solid State Detectors and Electronics & Integration
- Since we do NOT have a plan for what we want to do, a follow up discussion is needed