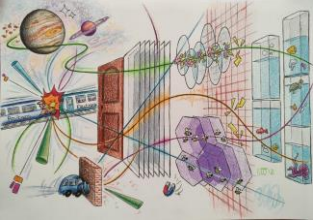


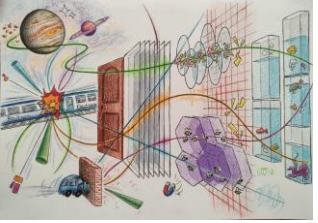
DRD3 WG1 Monolithic CMOS sensors

Introduction

Eva Vilella

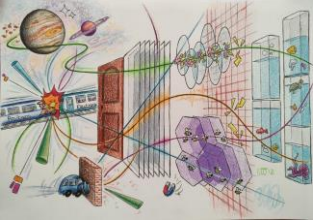
University of Liverpool

on behalf of the DRD3 proposal writing team



Goals of DRD3 WG1

- Strategic R&D on monolithic CMOS sensors to tackle the challenges of
  - Very high spatial resolution
  - High precision timing
  - High radiation tolerance
  - Low mass
  - Reduced granularity also when covering very large areas
  - Power
  - Cost
- Aimed at tracking and calorimetry applications
- Explore timing layers and 4D tracking
- Explore passive CMOS designs as a complement to standard sensors towards hybrid solutions
- Explore state-of-the-art CMOS imaging sensors technology for suitability in tracking and vertex applications



Goals of today's session

DRD3

Introduction	*Eva Vilella Figueras*
222/R-001, CERN	11:00 - 11:05
Toward a DRD3.1 deliverables/milestones implementation proposal	*Didier Claude Contardo*
222/R-001, CERN	11:05 - 11:20
Community research interests	*Eva Vilella Figueras*
222/R-001, CERN	11:20 - 11:30
General discussion	
222/R-001, CERN	11:30 - 12:15
Interaction between DRD3.1 and DRD7.6	*Eva Vilella Figueras et al.*
222/R-001, CERN	12:15 - 12:30

Two short talks

- Strategic R&D (next talk, 15 mins)
  - As per ECFA R&D roadmap
  - Propose a model to establish deliverables
  - Estimate the cost of this R&D
- Community research interests in CMOS (last talk, 10 minutes)
  - As per inputs provided in questionnaires + mapping with strategic goals

Leading to a 45 minutes general discussion

- To collect first feedback to tune the proposal

Finishing with a 15 minutes slot on relationship between DRD3.1 and DRD7.6

- 5 minutes slides + opportunity to ask questions and discuss for 10 minutes

Please respect the allocated time