

# Introduction to the Electronics and Readout Systems Session

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# Coordination & Information Exchange Bodies

- ATLAS and CMS electronics communities regularly meet during the ACES (ATLAS CMS Electronics for SLHC) workshops
  - ACES-1, -2, -3 in [2007](#), [2009](#), [2011](#)
  - ACES-4 next spring
- Some co-ordination bodies are in place
  - Power Working Group, Microelectronics Users Group, Optoelectronics Working Group, xTCA Interest Group
- Topical Workshop on Electronics for Particle Physics (TWEPP)
  - Larger audience than HL-LHC however good review of the work done for (HL-)LHC

# Common Projects in Electronics

- There are common projects since a number of years
  - White Paper Projects as of 2008
    - Identified necessary developments
      - IC technologies and IP
      - **Radiation hard** Gbps Optical Link
      - **Radiation and magnetic hard** DC-DC converters
    - These projects are moving to production next year
    - However they took more time than anticipated and some work is still needed to cope with HL-LHC radiation level
  - Recently a common ATLAS–CMS R&D program has been approved for the development of pixel readout electronics in CMOS 65 nm
    - RD53

# Agenda for today

- We have selected 4 subjects for which we think common work is still to be done to meet HL-LHC requirements
- *IC Design and Technologies (Alessandro Marchioro)*
- *Power Distribution (Peter Phillips)*
- *Modular Electronics (Jean-Pierre Cachemiche)*
- *Links (François Vasey)*

# *Back-up*

# Preparatory Group Composition

- 7 members
  - Alex Kluge (ALICE)
  - **Philippe Farthouat**, Maurice Garcia-Sciveres, Tony Weidberg (ATLAS)
  - **Magnus Hansen**, Jorgen Christiansen (CMS)
  - Ken Wyllie (LHCb)