

Current arrangement of working groups and topics for the community meeting at CERN on March 1st - 3rd

WG1: Technologies

- Includes experimental detector physics aspects
- MPGD
- RPC and MRPC
- Wire chambers (incl. Straws, TGC, CSC, ..)
- Large Volume Detectors (drift chambers, TPCs)
- New amplifying structures

WG2: Applications

Full alignment with the ECFA detector R&D roadmap

- Muon systems
- Inner and central tracking with particle identification capability
- Calorimetry
- Photon detection
- Time of Flight systems
- TPCs for rare event searches
- Fundamental research applications beyond HEP
- Medical and industrial applications

WG3: Gas and material studies – New

- Gas Properties (e.g. cross-section, chemical characterization, measurements)
- Eco-gases studies
- Light emission in gases
- Gas recuperation and recirculation systems
- Gas systems
- Sealed detectors and systems
- Resistive electrodes
- Solid converters
- Photocathodes (novel, aging, protection)
- Novel materials (e.g. nanomaterials)
- Material properties for detector and infrastructures
- Light (low material budget) materials
- Precise mechanics
- Aging
- Outgassing
- Radiation hardness

WG4: Detector physics, simulations, and software tools

- Detector Physics (modeling and simulations)
- Detector Performance Studies (modeling and simulations)
- Software development and maintenance
- Gas Properties Databases (e.g. cross-sections) - Use and/or Maintenance
- Detector design

WG5: Electronics for gaseous detectors

- Analog/Digital Electronics
- Discrete Readout Front End Electronics and ASICs (strips/pixels)
- Charge/Photon readout
- FE input protection & spark quenching
- Waveforms and Digitizer
- Cluster Counting
- Signal Processing
- Specific needs: Timing, High rate, Low noise, Wide Dynamic Range,...)
- Grounding and shielding
- Calibration
- SoC based sensor readout
- General purpose DAQ, FPGA based readout/trigger and Trigger-less systems
- High Voltage Systems and High Voltage distribution schemes
- LV Powering
- Cooling
- Laboratory instrumentation (High resolution floating ammeters, Monitoring and control systems)

WG6: Detector production

- CERN EP-DT Micro Pattern Technology (MPT) Workshop
- Saclay MPGD workshop
- RPC/MRPC workshop
- Wire chambers workshop
- Novel detector production methods
- CERN EP Thin Film & Glass service (photocathodes, coatings, ceramic)
- Technology and knowledge transfer (to industry and within the collaboration)
- Relationship with Industry

WG7: Common test facilities

Includes development of common detector characterization standards

- General purpose detector development laboratories
- Ageing Study Facility
- Gas studies facility
- Irradiation facility
- Test beam facility
- Chemistry and material laboratory
- Clean Room
- Instrumentation for common detector characterization (e.g. gas, DAQ, HV systems)

WG8: Training and dissemination

- Schools and trainings
- Topical workshops
- Knowledge transfer
- (Young) Researcher Career
- Strategies to recognize and sustain the careers of R&D experts