

WG2 communications

Conveners:

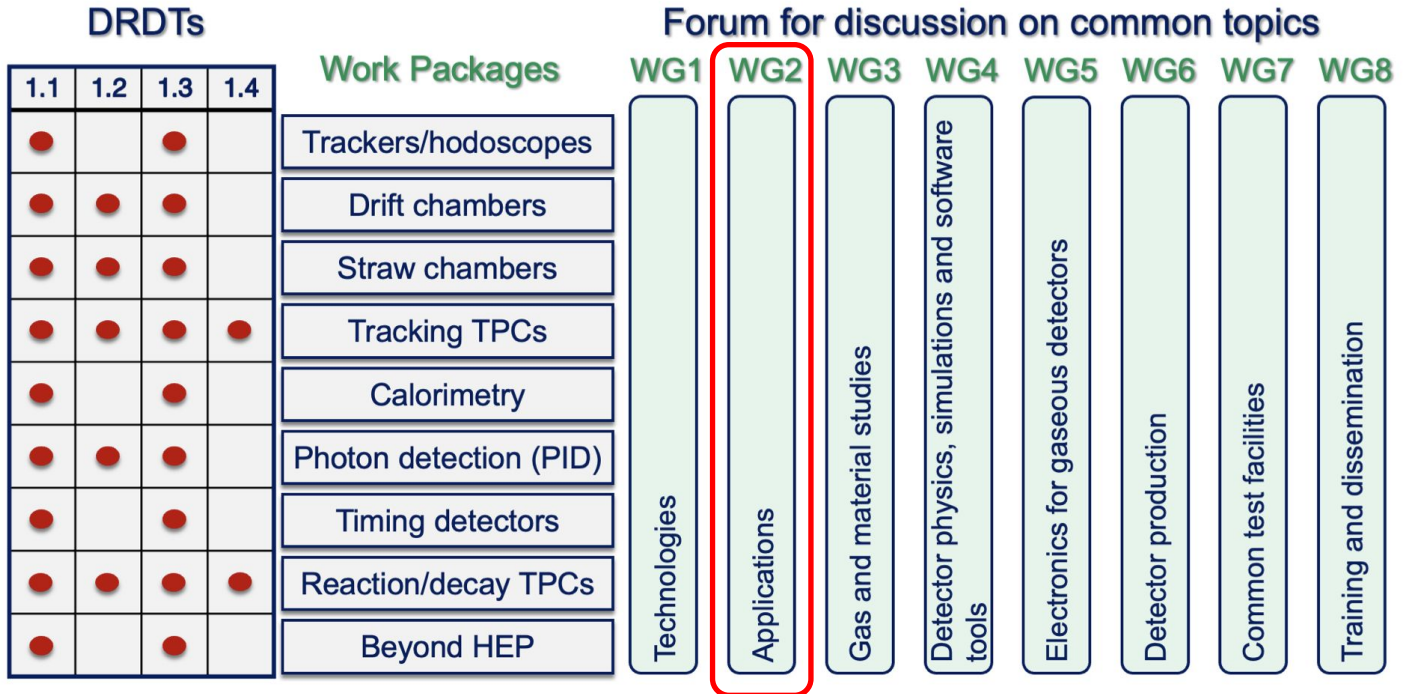
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Second DRD1 Collaboration Meeting

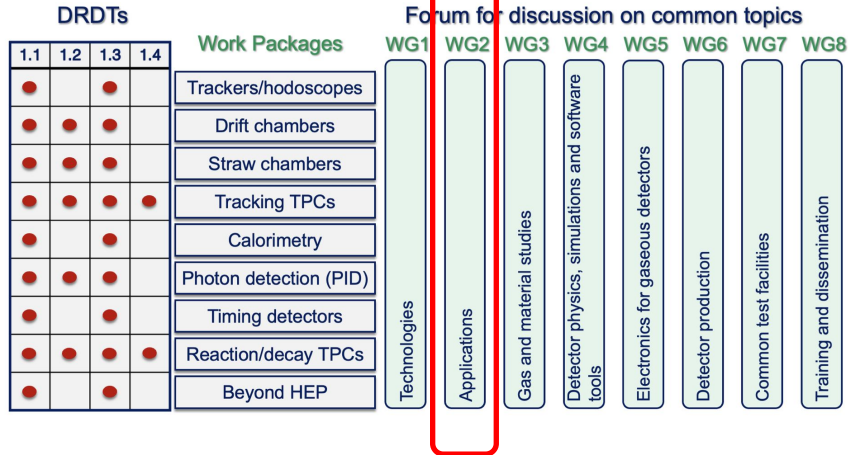
June 18, 2024

WG2 inside the DRD1 scientific organization



WG2 focus

Working Group 2 is focused on **applications** that use gaseous detectors technologies



Trackers/Hodoscope	WG2
[DRIFT] Inner and Cenral Tracking with Particle ID Identification	
[STRAW] Inner and Cenral Tracking with Particle ID Identification	
[TPC] Inner and Cenral Tracking with Particle ID Identification	
Calorimetry	
Photon Detector (PID)	
Timing Detectors (PID & Trigger)	
TPC as reaction and decay chambers	
Medical Application	
Neutron Science	
Muography	
Space Applicatios	
Oher (Dosimetry, Beam Monitoring, Cultural Heritage, Homeland Security,...)	

WG2: Application of gaseous detector in HEP and beyond-HEP fields

WG2 conducts dedicated sessions during the DRD1 Collaboration Meeting, providing all members with the opportunity to showcase their research in specific applications, exchange experiences, and receive valuable feedback.

The applications of interest for the WG2 are both HEP and beyond-HEP related.

Examples can be found in the following: muon systems, inner and central trackers, calorimetry, photo-detection, timing detectors, rare events TPC, and of course beyond HEP applications like muography, neutron science, dosimetry, space and many others.

By fostering collaboration and knowledge exchange, **WG2 aims to advance the technology and broaden the impact of gaseous detectors in diverse scientific domains.**

WG2 mandate

WG2 should serve as a **platform during collaboration meetings** for the presentation of activities,

i.e. those originating from the WPs, unless such activities are more appropriately aligned with the objectives of alternative WGs.

Applications unrelated to the WPs are welcome.

A feedback from this part of the community is needed to shape the program of WG2 even better

Within WG2 it is possible to share common interest on application and **create new clusters** and start new WP proposal.

WG2 have to serve DRD1 in regard to **dynamizing and monitor applications** and not just the WP-part of DRD1: proactively guide applications outside WPs towards potential synergies with existing WPs.

WG2 activities

The current activities of WG2 are focused on the Collaboration Meeting, where the participating groups present their application status.

Further activities can be organized to strengthen the community,

i.e. **meeting addressed to unrelated-WP application** where the community shows shared interest and activities. Please provide feedbacks and needs from the community.

It is important to avoid doubling meeting and activities with WPs but provide complementary supports.

To track the community interest in the different application fields, a dedicated section will collect the WG2 updates from the Collaboration Meeting on [DRD1 website](#).

If participating institute working on similar application want to profit of WG2, dedicated session on application can be defined in future WG2 meetings or Topical Workshop.

WG2 activities

Large overlap with WG1: a report about an application might be more suited for WG1 or WG2 depending whether more emphasis is put in the detection technology or in the application itself.

i.e. if an author wants to focus on the detector then WG1 is suitable, if the author wants to focus on the application then it is more WG2.



Many activities (and reports) rely on more than one WG. Conveners and **presenters** can **decide** the main focus of their activity and **their interaction with the community**.

Most of the WPs tasks fits with the WG2,
i.e. WP9 Beyond-HEP, but also HEP WPs

Everyone participating to the WPs is included but also we should extend it to everyone else working on applications

Self-subscribe to the mailing list and e-group: [DRD1-WG2](#) (70 member, self-added)

WG2 Collaboration meeting session

09:00	Introduction 40/S2-D01 - Salle Dirac, CERN	09:00 - 09:20
	Development of RPC technology for Muon Tomography and neutron Detection 40/S2-D01 - Salle Dirac, CERN	Alberto Blanco et al. 09:20 - 09:40
	Gas-tight RPC for muography applications 40/S2-D01 - Salle Dirac, CERN	Andrea Giammanco et al. 09:45 - 10:05
10:00	Nanodosimetry 40/S2-D01 - Salle Dirac, CERN	Antoni Rucinski et al. 10:10 - 10:30
	Coffee break 40/S2-D01 - Salle Dirac, CERN	10:30 - 11:00
11:00	Performances of a Boron-coated GEM detector for thermal neutrons at the ISIS Neutron and Muon Source Stephanie Cancelli	
	Assessment of a space and energy resolved diagnostic based on GEM detector technology on MAST-U 40/S2-D01 - Salle Dirac, CERN	Gabriele Croci 11:25 - 11:45
12:00	Novel method for in-situ drift velocity measurement in large volume TPCs 40/S2-D01 - Salle Dirac, CERN	Andras Laszlo 

Summary

- WG2 is a platform for sharing application updates across a wide range of fields in HEP and beyond-HEP
- All individuals participating in the WPs are included in WG2 activities
- Participation from anyone working on applications not included in any WPs is welcome!
- Dedicated session on application can be defined in future WG2 meetings or Topical Workshop for share common interest on application and create new clusters
- Your feedback is extremely valuable to shape the WG