

7th DRD1 Collaboration Meeting

Report of Contributions

Contribution ID: 374

Type: **not specified**

Welcome

Tuesday, 24 February 2026 14:00 (10 minutes)

Co-authors: PASTORE, Alessandra (Universita e INFN, Bari (IT)); MANDELLI, Beatrice (CERN); RENGA, Francesco (INFN Roma); MORELLO, Gianfranco (INFN e Laboratori Nazionali di Frascati (IT)); ROTH, Stefan (Rheinisch Westfaelische Tech. Hoch. (DE))

Presenters: PASTORE, Alessandra (Universita e INFN, Bari (IT)); MANDELLI, Beatrice (CERN); RENGA, Francesco (INFN Roma); MORELLO, Gianfranco (INFN e Laboratori Nazionali di Frascati (IT)); ROTH, Stefan (Rheinisch Westfaelische Tech. Hoch. (DE))

Session Classification: Working Group 3: Gas and material studies

Contribution ID: 375

Type: **not specified**

Exploring high-concentration iC₄H₁₀ gas mixtures for RPC detectors

Tuesday, 24 February 2026 14:10 (20 minutes)

Author: VERZEROLI, Mattia (Shanghai Jiao Tong University (CN))

Presenter: VERZEROLI, Mattia (Shanghai Jiao Tong University (CN))

Session Classification: Working Group 3: Gas and material studies

Contribution ID: 376

Type: **not specified**

μ Rwell Characterisation with low-CF4 concentrations

Tuesday, 24 February 2026 14:30 (20 minutes)

Author: JUKS, Stefania (Université Paris-Saclay (FR))

Presenter: JUKS, Stefania (Université Paris-Saclay (FR))

Session Classification: Working Group 3: Gas and material studies

Contribution ID: 377

Type: **not specified**

Mechanical Characterization of Ultrathin Wires for Drift Chamber Applications

Tuesday, 24 February 2026 16:30 (20 minutes)

Co-authors: PROCACCI, Francesco (Universita e INFN, Bari (IT)); SAIEL, Muhammad

Presenter: SAIEL, Muhammad

Session Classification: Working Group 3: Gas and material studies

Contribution ID: 378

Type: **not specified**

Search for Eco-friendly gases –a set-up for gas properties investigation

Tuesday, 24 February 2026 15:50 (20 minutes)

Authors: PINTO DOS SANTOS, Filomena (Universidade de Coimbra); SANTOS, filomena

Presenters: PINTO DOS SANTOS, Filomena (Universidade de Coimbra); SANTOS, filomena

Session Classification: Working Group 3: Gas and material studies

Contribution ID: 379

Type: **not specified**

Preliminary studies of the background due to fast neutron interactions in a triple-GEM detector with Timepix readout

Tuesday, 24 February 2026 16:10 (20 minutes)

Author: CLAPS, Gerardo

Presenter: CLAPS, Gerardo

Session Classification: Working Group 3: Gas and material studies

Contribution ID: **380**

Type: **not specified**

Sealed mode MWPC telescope for underwater muography

Tuesday, 24 February 2026 10:15 (20 minutes)

Presenter: VARGA, Dezso (HUN-REN Wigner Research Centre for Physics (HU))

Session Classification: Working Group 2: Applications

Contribution ID: **381**

Type: **not specified**

Performance and validation of the candidate ATLAS RPC mixtures for LS3 and Run4 of HL-LHC

Tuesday, 24 February 2026 11:00 (20 minutes)

Presenter: SIMSEK, Sinem (Istinye University (TR))

Session Classification: Working Group 2: Applications

Contribution ID: **382**

Type: **not specified**

Large-area Micromegas detector development of the AMBER experiment

Tuesday, 24 February 2026 09:50 (20 minutes)

Presenter: ALICE, Chiara (Universita e INFN Torino (IT))

Session Classification: Working Group 2: Applications

Contribution ID: **383**

Type: **not specified**

Status update of the CGEM-IT of the BESIII experiment

Tuesday, 24 February 2026 11:25 (20 minutes)

Presenter: GRECO, Michela (Universita e INFN Torino (IT))

Session Classification: Working Group 2: Applications

Contribution ID: **384**

Type: **not specified**

CMS GEM reponse under magnetic field variation

Tuesday, 24 February 2026 09:25 (20 minutes)

Presenter: CONFORTINI, Francesco (University Federico II and INFN, Naples (IT))

Session Classification: Working Group 2: Applications

Contribution ID: 385

Type: **not specified**

Results from a compact OTPC at WIS: a step towards a neutron beamline-ready detector

Tuesday, 24 February 2026 09:00 (20 minutes)

Presenter: Dr FELKAI, Ryan (Weizmann Institute of Science)

Session Classification: Working Group 2: Applications

Contribution ID: **386**

Type: **not specified**

WG4 updates

Wednesday, 25 February 2026 11:00 (15 minutes)

Author: ABBRESCIA, Marcello (Bari Physics Department and INFN)

Co-author: DRD1-WG4-CONVENORS@CERN.CH

Presenters: ABBRESCIA, Marcello (Bari Physics Department and INFN); DRD1-WG4-CONVENORS@CERN.CH

Session Classification: Working Group 4: Detector physics, simulations, and software tools

Contribution ID: **387**

Type: **not specified**

Simulation and reconstruction of e⁺ and e⁻ trajectories in an Orthogonal Fields Time Projection Chamber

Wednesday, 25 February 2026 11:15 (20 minutes)

Presenter: VAVŘÍK, Martin (IEAP CTU)

Session Classification: Working Group 4: Detector physics, simulations, and software tools

Contribution ID: **388**

Type: **not specified**

Simulation Studies: Impact of Hole Pitch Reduction on Electron Transport.

Wednesday, 25 February 2026 11:35 (20 minutes)

Authors: KUMAR, Ajay (Banaras Hindu University); GUPTA, Rajiv

Presenter: GUPTA, Rajiv

Session Classification: Working Group 4: Detector physics, simulations, and software tools

Contribution ID: **389**

Type: **not specified**

TBC

Presenter: JOVANOVIC, Jelena (University of Belgrade (RS))

Session Classification: Working Group 4: Detector physics, simulations, and software tools

Contribution ID: 390

Type: **not specified**

Separation Challenges and Material Solutions for CF_4 and C_2F_6 Removal from N_2 and CO_2

Tuesday, 24 February 2026 14:50 (20 minutes)

The separation of perfluorocarbons, particularly CF_4 and C_2F_6 , from N_2 and CO_2 represents a significant challenge in gas treatment systems related to plasma-based technologies and accelerator facilities. Owing to their high chemical stability, low reactivity, and distinct molecular sizes and polarizabilities, conventional separation methods often show limited efficiency.

This presentation provides a literature-based overview of current approaches for CF_4 and C_2F_6 separation, with emphasis on adsorption and membrane-based technologies. Recent developments in advanced adsorbent materials, including metal–organic frameworks and other porous solids, are discussed alongside emerging membrane materials such as modified polyimides and mixed-matrix membranes. The key separation mechanisms governing selectivity toward CF_4 and C_2F_6 over N_2 and CO_2 are highlighted.

By comparing adsorption- and membrane-driven processes, this overview outlines current limitations and identifies material-design trends that may enable more efficient and selective separation strategies in future applications.

Co-authors: TESSAROTTO, Fulvio (INFN Trieste); JOVANOVIĆ, Jelena (University of Belgrade (RS)); BEGOVIĆ, Nebojsa (University of Belgrade (RS)); MILENOVIĆ, Predrag (University of Belgrade (RS))

Presenter: JOVANOVIĆ, Jelena (University of Belgrade (RS))

Session Classification: Working Group 3: Gas and material studies

Contribution ID: 391

Type: **not specified**

Picosec Timing with Graph Neural Networks

Monday, 23 February 2026 16:40 (25 minutes)

Presenter: Mr KARAKOULIAS, Ioannis (Phd Student in A.U.TH)

Session Classification: Working Group 1: Technological Aspects and Developments of New Detector Structures, Common Characterization and Physics Issues

Contribution ID: 392

Type: **not specified**

Optical readout Micromegas: spatial resolution measurements and beta imaging

Monday, 23 February 2026 15:45 (25 minutes)

Presenter: FASOULA, Elisavet (Université Paris-Saclay (FR))

Session Classification: Working Group 1: Technological Aspects and Developments of New Detector Structures, Common Characterization and Physics Issues

Contribution ID: 393

Type: **not specified**

T2K TPC : one year of data taking

Monday, 23 February 2026 14:55 (25 minutes)

Presenter: HENAFF, David (CEA)

Session Classification: Working Group 1: Technological Aspects and Developments of New Detector Structures, Common Characterization and Physics Issues

Contribution ID: 394

Type: **not specified**

Recent Advancements on the PICOSEC Micromegas Development

Monday, 23 February 2026 17:05 (25 minutes)

Presenter: KALLITSOPOULOU, Alexandra (CEA / IRFU / Université Paris-Saclay (FR))

Session Classification: Working Group 1: Technological Aspects and Developments of New Detector Structures, Common Characterization and Physics Issues

Contribution ID: 395

Type: **not specified**

proANUBIS : an RPC-based detector for Long-Live Particle search

Presenter: SHAH, Aashaq (University of Cambridge (GB))

Contribution ID: 396

Type: **not specified**

Performance of ANUBIS demonstrator with the LHC collision data

Monday, 23 February 2026 14:30 (25 minutes)

Presenter: SHAH, Aashaq (University of Cambridge (GB))

Session Classification: Working Group 1: Technological Aspects and Developments of New Detector Structures, Common Characterization and Physics Issues

Contribution ID: 397

Type: **not specified**

Drift-field distortions in the ALICE TPC in LHC Run 3

Monday, 23 February 2026 15:20 (25 minutes)

Presenter: JÄGER, Janis (Goethe University Frankfurt (DE))

Session Classification: Working Group 1: Technological Aspects and Developments of New Detector Structures, Common Characterization and Physics Issues

Contribution ID: 398

Type: **not specified**

Updated kinetic model for Ar/CF4 scintillation under X-rays

Wednesday, 25 February 2026 12:40 (20 minutes)

Presenter: DANIEL VAZQUEZ

Session Classification: Working Group 4: Detector physics, simulations, and software tools

Contribution ID: 399

Type: **not specified**

A predictive microscopic model for secondary scintillation in Ar/CF₄ and He/CF₄ mixtures

Wednesday, 25 February 2026 13:00 (20 minutes)

Presenter: RAÚL SEÑARÍS

Session Classification: Working Group 4: Detector physics, simulations, and software tools

Contribution ID: 400

Type: **not specified**

Simulation Studies for the NNBAR Experiment TPC Development

Wednesday, 25 February 2026 13:20 (20 minutes)

Presenter: Mr SILVA, Gabriel (Universidade do Estado do Rio de Janeiro (BR))

Session Classification: Working Group 4: Detector physics, simulations, and software tools

Contribution ID: **401**

Type: **not specified**

TBC

Session Classification: Working Group 4: Detector physics, simulations, and software tools

Contribution ID: 402

Type: **not specified**

Performance of Different Capacitive Charge-Sharing Readout Configurations in Resistive Micromegas

Tuesday, 24 February 2026 11:50 (20 minutes)

Presenters: BIGLIETTI, Michela; BIGLIETTI, Michela (INFN Roma Tre)

Session Classification: Working Group 2: Applications

Contribution ID: 403

Type: **not specified**

Low energy ion impact point measurement with VMMs with a low pressure MICROMEAS

Monday, 23 February 2026 17:30 (25 minutes)

Presenter: FORESI, Andrea (Universita Siena & INFN Pisa (IT))

Session Classification: Working Group 1: Technological Aspects and Developments of New Detector Structures, Common Characterization and Physics Issues

Contribution ID: 404

Type: **not specified**

Strategies for Fluorinated Gas Separation - Recent Results and Ongoing Work

Tuesday, 24 February 2026 15:30 (20 minutes)

Co-author: ARENA, Maria Cristina (CERN)

Presenter: ARENA, Maria Cristina (CERN)

Session Classification: Working Group 3: Gas and material studies

Contribution ID: 405

Type: **not specified**

DRD1 Management Board Meeting (DRD1 MB 2026 / 02)

Monday, 23 February 2026 13:00 (1 hour)

Presenters: OLIVERI, Eraldo (CERN); PUGLIESE, Gabriella (Universita e INFN, Bari (IT)); Dr TITOV, Maksym (IRFU, CEA Saclay, Université Paris-Saclay (FR))

Session Classification: Management Board

Contribution ID: 406

Type: **not specified**

MPGDs applications in nanodosimetry

Tuesday, 24 February 2026 12:15 (20 minutes)

Presenters: PIETRZAK, Marcin Jan; PIETRZAK, Marcin (Institute of Nuclear Physics PAN, Poland)

Session Classification: Working Group 2: Applications

Contribution ID: 407

Type: **not specified**

Corryvreckan for MPGD, updates and quick guide

Friday, 27 February 2026 09:20 (15 minutes)

Contribution to the recent updates to Corryvreckan for MPGD detectors, focusing on the introduction of the MPGDetector class and its role in making the framework readout-aware for 2D strip systems.

The class supports consistent X/Y strip mapping, charge interpretation, and scalable integration of new DAQ backends, keeping decoding separated from detector-level logic.

A short overview of the Quick MPGD Guide and ongoing work on merge procedures in Corryvreckan will also be included.

Author: SIDORETTI, Elena (INFN e Laboratori Nazionali di Frascati (IT))

Presenter: SIDORETTI, Elena (INFN e Laboratori Nazionali di Frascati (IT))

Session Classification: Working Group 7: Common test facilities

Contribution ID: **408**

Type: **not specified**

MPGD-HCAL R&D: PS Test Beam 10/25 with VMM3a

Thursday, 26 February 2026 15:30 (15 minutes)

Author: GENEROSO, Lisa (Universita e INFN, Bari (IT))

Co-author: BORYSOVA, Maryna (Weizmann Institute of Science)

Presenters: GENEROSO, Lisa (Universita e INFN, Bari (IT)); BORYSOVA, Maryna (Weizmann Institute of Science)

Session Classification: Working Group 7: Common test facilities

Contribution ID: **409**

Type: **not specified**

implementation of the individual planes for the track reconstruction with corry - preliminary title

has to be on friday

Author: PFEIFFER, Dorothea (CERN)

Presenter: PFEIFFER, Dorothea (CERN)

Session Classification: Working Group 7: Common test facilities

Contribution ID: 410

Type: **not specified**

ePIC MPGD Trackers Test beam Plans & Other ongoing R&Ds

Thursday, 26 February 2026 15:50 (15 minutes)

preffered in the afternoon because of timeshift US

Author: GNANVO, Kondo (Southeastern Universities Research Association, Inc. (US))

Co-authors: D'ANGELO, Annalisa (Universita' di Roma Tor Vergata & INFN Roma Tor Vergata); JEAN-NEAU, Fabien (Université Paris-Saclay (FR)); BOSSU, Francesco (Université Paris-Saclay (FR))

Presenters: D'ANGELO, Annalisa (Universita' di Roma Tor Vergata & INFN Roma Tor Vergata); JEAN-NEAU, Fabien (Université Paris-Saclay (FR)); BOSSU, Francesco (Université Paris-Saclay (FR)); GNANVO, Kondo (Southeastern Universities Research Association, Inc. (US))

Session Classification: Working Group 7: Common test facilities

Contribution ID: 411

Type: **not specified**

Invited talk: EURO-LABS

Thursday, 26 February 2026 16:30 (15 minutes)

EURO-LABS and its perspectives

<https://web.infn.it/EURO-LABS/>

Author: GIACOMELLI, Paolo (Universita e INFN, Bologna (IT))

Presenter: GIACOMELLI, Paolo (Universita e INFN, Bologna (IT))

Session Classification: Working Group 7: Common test facilities

Contribution ID: 412

Type: **not specified**

News from CERN MPT workshop

Thursday, 26 February 2026 09:00 (30 minutes)

Presenter: DROZD, Adam (CERN)

Session Classification: Working Group 6: Detector production

Contribution ID: 413

Type: **not specified**

News from the sputtering machine of the MPT workshop

Thursday, 26 February 2026 09:30 (30 minutes)

Authors: Mr MIRALLAS SANCHEZ, Hector (Universidad de Zaragoza (ES)); FLOETHNER, Karl Jonathan (University of Bonn (DE))

Presenter: FLOETHNER, Karl Jonathan (University of Bonn (DE))

Session Classification: Working Group 6: Detector production

Contribution ID: 414

Type: **not specified**

Mechanical and microscopic characterization of USW straw production quality

Thursday, 26 February 2026 10:00 (30 minutes)

Presenter: BUCHANAN, Katie Elizabeth (CERN)

Session Classification: Working Group 6: Detector production

Contribution ID: 415

Type: **not specified**

A practical & open-source solution for read-out mapping from Gerber files

Friday, 27 February 2026 09:40 (15 minutes)

time to be confirmed

Author: ORLANDINI, Romano (Universita e INFN Roma Tre (IT))

Co-author: IODICE, Mauro (INFN - Sezione di Roma Tre)

Presenters: IODICE, Mauro (INFN - Sezione di Roma Tre); ORLANDINI, Romano (Universita e INFN Roma Tre (IT))

Session Classification: Working Group 7: Common test facilities

Contribution ID: 416

Type: **not specified**

Triple-GEM Characterization for High-Pressure Gas Argon-Based Operation

Monday, 23 February 2026 17:55 (25 minutes)

Presenters: MOHAYAI, Tanaz Angelina (Illinois Institute of Technology); MOHAYAI, Tanaz (Indiana University)

Session Classification: Working Group 1: Technological Aspects and Developments of New Detector Structures, Common Characterization and Physics Issues

Contribution ID: **417**

Type: **not specified**

Introduction

Authors: FLOETHNER, Karl Jonathan (University of Bonn (DE)); TSIPOLITIS, Yorgos (National Technical Univ. of Athens (GR))

Presenters: FLOETHNER, Karl Jonathan (University of Bonn (DE)); TSIPOLITIS, Yorgos (National Technical Univ. of Athens (GR))

Session Classification: Working Group 7: Common test facilities

Contribution ID: **418**

Type: **not specified**

Welcome and News

Monday, 23 February 2026 14:00 (15 minutes)

Presenters: COLALEO, Anna (Universita e INFN, Bari (IT)); MANDELLI, Beatrice (CERN); OLIV-
ERI, Eraldo (CERN); ROPELEWSKI, Leszek (CERN); Dr TITOV, Maksym (IRFU, CEA Saclay, Uni-
versité Paris-Saclay (FR)); GASIK, Piotr (GSI - Helmholtzzentrum fur Schwerionenforschung GmbH
(DE))

Session Classification: Plenary Session (Introduction)

Contribution ID: **419**

Type: **not specified**

2026 DRD1 Collaboration Meeting Outside CERN - Coimbra Proposal

Monday, 23 February 2026 14:15 (10 minutes)

Presenters: MARQUES, Afonso; Mr MARQUES, Afonso (LIP Coimbra / University of Coimbra)

Session Classification: Plenary Session (Introduction)

Contribution ID: 420

Type: **not specified**

HYDRA TPC status update: November beamtime results

Thursday, 26 February 2026 16:10 (15 minutes)

Update on HYDRA. In particular, preliminary results from last year's test beam, as well as plans for the new test beam scheduled for July this year.

Author: LAGNI, Andrea (Technische Universitaet Darmstadt (DE))

Presenter: LAGNI, Andrea (Technische Universitaet Darmstadt (DE))

Session Classification: Working Group 7: Common test facilities

Contribution ID: 421

Type: **not specified**

R&D on GDD lab service electronics

Wednesday, 25 February 2026 15:00 (30 minutes)

Presenter: MULLER, Hans (University of Bonn (DE))

Session Classification: Working Group 5: Electronics for gaseous detectors

Contribution ID: 422

Type: **not specified**

News on the TORA ASIC

Wednesday, 25 February 2026 14:30 (30 minutes)

Presenter: MAZZA, Gianni

Session Classification: Working Group 5: Electronics for gaseous detectors

Contribution ID: 423

Type: **not specified**

Development of FPGA-sourced 100GB RDMA in Bucharest (ZOOM)

Wednesday, 25 February 2026 14:05 (25 minutes)

Presenter: VASILE, Matei (IFIN-HH (RO))

Session Classification: Working Group 5: Electronics for gaseous detectors

Contribution ID: 424

Type: **not specified**

100 GB eFEC backend for SRSe – Design status & plans at UPV (ZOOM)

Wednesday, 25 February 2026 15:30 (30 minutes)

Presenters: TOLEDO ALARCON, Jose Francisco (Valencia Polytechnic University (ES)); CABALLER FORNER, Rubén

Session Classification: Working Group 5: Electronics for gaseous detectors

Contribution ID: 425

Type: **not specified**

VMM3a and VMM3s situation – Round table

Wednesday, 25 February 2026 16:00 (30 minutes)

Presenter: LEVINSON, Lorne (Weizmann Institute of Science (IL))

Session Classification: Working Group 5: Electronics for gaseous detectors

Contribution ID: 426

Type: **not specified**

A GUI for Magboltz

Wednesday, 25 February 2026 11:55 (15 minutes)

Co-author: CIUBOTARU, Dan Andrei (Horia Hulubei National Institute of Physics and Nuclear Engineering (RO))

Presenter: RENDA, Michele (IFIN-HH)

Session Classification: Working Group 4: Detector physics, simulations, and software tools

Contribution ID: 427

Type: **not specified**

Introduction

Wednesday, 25 February 2026 14:00 (5 minutes)

Presenter: MULLER, Hans (University of Bonn (DE))

Session Classification: Working Group 5: Electronics for gaseous detectors

Contribution ID: 428

Type: **not specified**

Status of DLC machine for INFN-oriented applications

Thursday, 26 February 2026 11:00 (30 minutes)

Presenter: MORELLO, Gianfranco (INFN e Laboratori Nazionali di Frascati (IT))

Session Classification: Working Group 6: Detector production

Contribution ID: 429

Type: **not specified**

2026 Test Beam Campaigns Update

Friday, 27 February 2026 09:00 (15 minutes)

EOI: <https://docs.google.com/spreadsheets/d/1tK-2f5PR107S04Y7bvk0dvNItxuIDaIAhlwI6nxUEj4/edit?usp=sharing>

Preliminary:

- 1st, May test beam: <https://indico.cern.ch/event/1647512/>
- 2nd, July test beam: <https://indico.cern.ch/event/1647848/>

Authors: FLOETHNER, Karl Jonathan (University of Bonn (DE)); TSIPOLITIS, Yorgos (National Technical Univ. of Athens (GR))

Presenters: FLOETHNER, Karl Jonathan (University of Bonn (DE)); TSIPOLITIS, Yorgos (National Technical Univ. of Athens (GR))

Session Classification: Working Group 7: Common test facilities

Contribution ID: 430

Type: **not specified**

Updates from WG8

Friday, 27 February 2026 10:00 (30 minutes)

Presenters: Prof. BARACCHINI, Elisabetta (Gran Sasso Science Institute); BRUNBAUER, Florian Maximilian (CERN); IODICE, Mauro (INFN - Sezione di Roma Tre); HAFEJI, Raheema (Istituto de Física Corpuscular (IFIC))

Session Classification: Working Group 8: Knowledge Transfer, Training, Career Promotion

Contribution ID: 431

Type: **not specified**

ASIC design for DRD1

Wednesday, 25 February 2026 16:30 (30 minutes)

Presenter: MARTOIU, Sorin (Horia Hulubei National Institute of Physics and Nuclear Engineering (RO))

Session Classification: Working Group 5: Electronics for gaseous detectors