

1st DRD1 Collaboration Meeting

Report of Contributions

Contribution ID: 1

Type: **not specified**

WP - general introduction

Monday 29 January 2024 15:30 (20 minutes)

Presenter: GASIK, Piotr (GSI - Helmholtzzentrum für Schwerionenforschung GmbH (DE))

Session Classification: Work Packages

Contribution ID: 2

Type: **not specified**

WP1 - Genuine trackers/hodoscopes (large area muon systems, inner tracking/vertexing)

Monday 29 January 2024 15:50 (20 minutes)

Presenters: OCHI, Atsuhiko (Kobe University (JP)); PUGLIESE, Gabriella (Universita e INFN, Bari (IT)); AIELLI, Giulio (INFN e Universita Roma Tor Vergata (IT)); IODICE, Mauro (INFN - Sezione di Roma Tre); FARINELLI, Riccardo (Universita e INFN, Ferrara (IT))

Session Classification: Work Packages

Contribution ID: 3

Type: **not specified**

WP2 - Inner and central tracking with PID (Drift Chambers)

Monday 29 January 2024 16:10 (20 minutes)

Presenters: Dr GRANCAGNOLO, Francesco (Universita & INFN Lecce (IT)); DE FILIPPIS, Nicola (Politecnico/INFN Bari (IT))

Session Classification: Work Packages

Contribution ID: 4

Type: **not specified**

WP3 - Inner and central tracking with PID (Straw Chambers)

Monday 29 January 2024 16:30 (20 minutes)

Presenter: WINTZ, Peter (Forschungszentrum Juelich GmbH (DE))

Session Classification: Work Packages

Contribution ID: 5

Type: **not specified**

WP4 - Inner and central tracking with PID (Tracking TPCs)

Monday 29 January 2024 16:50 (20 minutes)

Presenters: GONZALEZ DIAZ, Diego (Universidade de Santiago de Compostela (ES)); FERRER RIBAS, Esther (Université Paris-Saclay (FR)); GARCIA, Francisco (Helsinki Institute of Physics (FI)); KAMINSKI, Jochen (University of Bonn (DE)); GASIK, Piotr (GSI - Helmholtzzentrum für Schwerionenforschung GmbH (DE))

Session Classification: Work Packages

Contribution ID: 6

Type: **not specified**

WP5 - Calorimetry

Monday 29 January 2024 17:10 (20 minutes)

Presenter: LAKTINEH, Imad (Centre National de la Recherche Scientifique (FR))

Session Classification: Work Packages

Contribution ID: 7

Type: **not specified**

WP6 - Gaseous photon detectors

Tuesday 30 January 2024 14:00 (20 minutes)

Presenters: TESSAROTTO, Fulvio (Universita e INFN Trieste (IT)); Dr DASGUPTA, Shuddha Shankar (National Institute of Science Education and Research, Bhubaneswar)

Session Classification: Work Packages

Contribution ID: 8

Type: **not specified**

WP7 - Gaseous timing detectors

Tuesday 30 January 2024 14:20 (20 minutes)

Presenters: GONZALEZ DIAZ, Diego (Universidade de Santiago de Compostela (ES)); BRUNBAUER, Florian Maximilian (CERN); LAKTINEH, Imad (Centre National de la Recherche Scientifique (FR)); DEPPNER, Ingo-Martin (Physikalisches Institut der Universität Heidelberg)

Session Classification: Work Packages

Contribution ID: 9

Type: **not specified**

WP8 - TPCs as reaction and decay chambers (rare events, neutrino physics, nuclear physics)

Tuesday 30 January 2024 14:40 (20 minutes)

Presenters: GONZALEZ DIAZ, Diego (Universidade de Santiago de Compostela (ES)); FERRER RIBAS, Esther (Université Paris-Saclay (FR))

Session Classification: Work Packages

Contribution ID: **10**

Type: **not specified**

WP9 - Beyond HEP

Tuesday 30 January 2024 15:00 (20 minutes)

Presenters: VARGA, Dezso (HUN-REN Wigner Research Centre for Physics (HU)); CROCI, Gabriele (Universita & INFN, Milano-Bicocca (IT)); BORTFELDT, Jona (Ludwig Maximilians Universitat (DE))

Session Classification: Work Packages

Contribution ID: 11

Type: **not specified**

Introduction to WG4 - Objectives - Organization (15'+5')

Wednesday 31 January 2024 11:40 (20 minutes)

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

Contribution ID: 12

Type: **not specified**

Simulation of Resistive Detectors (15' + 5')

Wednesday 31 January 2024 12:20 (20 minutes)

Presenter: JANSSENS, Djunes (Vrije Universiteit Brussel (BE))

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

Contribution ID: 13

Type: **not specified**

Simulation of RPC detectors with updated R134 cross sections and future prospects (15' + 5')

Wednesday 31 January 2024 12:00 (20 minutes)

Presenter: STOCCO, Dario (ETH Zürich)

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

Contribution ID: 14

Type: **not specified**

Simulation of signal propagation in small-gap RPCs (12' + 5')

Wednesday 31 January 2024 14:00 (15 minutes)

Presenter: SUN, Yongjie (University of Science and Technology of China (CN))

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

Contribution ID: 15

Type: **not specified**

Overview of simulation activities at SINP and future prospects (12' + 3')

Wednesday 31 January 2024 14:15 (15 minutes)

Presenters: MUKHOPADHYAY, Supratik (Saha Institute of Nuclear Physics (IN)); MUKHOPADHYAY, Supratik (Saha Institute of Nuclear Physics (IN))

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

Contribution ID: 16

Type: **not specified**

Simulation and physics modelling of Active Target TPCs (12' + 3')

Wednesday 31 January 2024 14:30 (15 minutes)

Presenter: Dr AYYAD, Yassid (Facility for rare Isotope Beams)

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

Contribution ID: 17

Type: **not specified**

Introduction to WG3

Wednesday 31 January 2024 09:00 (20 minutes)

Presenter: MANDELLI, Beatrice (CERN)

Session Classification: Working Group 3: Gas and material studies

Contribution ID: **18**

Type: **not specified**

Gas properties database

Wednesday 31 January 2024 09:20 (20 minutes)

Presenter: THAMM, Nick (Rheinisch Westfaelische Tech. Hoch. (DE))

Session Classification: Working Group 3: Gas and material studies

Contribution ID: **19**

Type: **not specified**

Eco-gas studies

Wednesday 31 January 2024 09:40 (20 minutes)

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

Session Classification: Working Group 3: Gas and material studies

Contribution ID: **20**

Type: **not specified**

Gas systems for gaseous detectors

Wednesday 31 January 2024 10:00 (20 minutes)

Presenter: RIGOLETTI, Gianluca (CERN)

Session Classification: Working Group 3: Gas and material studies

Contribution ID: 21

Type: **not specified**

Resistive electrodes

Wednesday 31 January 2024 10:20 (20 minutes)

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

Session Classification: Working Group 3: Gas and material studies

Contribution ID: 22

Type: **not specified**

New Wires with CHANGE

Wednesday 31 January 2024 10:40 (20 minutes)

Presenter: CHARLES, Gabriel (Université Paris-Saclay (FR))

Session Classification: Working Group 3: Gas and material studies

Contribution ID: 23

Type: **not specified**

Long-term and aging studies: the example of CMS Muon system

Presenter: KUZNETSOVA, Katerina (University of Florida (US))

Session Classification: Working Group 3: Gas and material studies

Contribution ID: 24

Type: **not specified**

Intruduction

Thursday 1 February 2024 15:00 (5 minutes)

Working Group Tasks and Common Objectives

Presenters: FERRETTI, Alessandro (Universita e INFN Torino (IT)); OLIVERI, Eraldo (CERN); GUIDA, Roberto (CERN); TSIPOLITIS, Yorgos (National Technical Univ. of Athens (GR))

Session Classification: Working Group 7: Common test facilities

Contribution ID: 25

Type: **not specified**

CERN EHN1 Test Beam Facility

Thursday 1 February 2024 15:05 (20 minutes)

Presenter: BANERJEE, Dipanwita (CERN)

Session Classification: Working Group 7: Common test facilities

Contribution ID: 26

Type: **not specified**

Test Beam Plans 2024 - PICOSEC Collaboration

Thursday 1 February 2024 15:35 (12 minutes)

Presenter: BRUNBAUER, Florian Maximilian (CERN)

Session Classification: Working Group 7: Common test facilities

Contribution ID: 27

Type: **not specified**

Test Beam Plans 2024 - Resistive MPGD Calorimeter with timing measurement

Thursday 1 February 2024 15:47 (12 minutes)

Presenter: LONGO, Luigi (Universita e INFN, Bari (IT))

Session Classification: Working Group 7: Common test facilities

Contribution ID: 28

Type: **not specified**

CMS R&D Detector Laboratory (904)

Thursday 1 February 2024 16:30 (15 minutes)

Presenter: MORSE, David (Northeastern University (US))

Session Classification: Working Group 7: Common test facilities

Contribution ID: 29

Type: **not specified**

GIF++ Irradiation Facility

Thursday 1 February 2024 16:45 (20 minutes)

Presenter: JAEKEL, Martin R. (CERN)

Session Classification: Working Group 7: Common test facilities

Contribution ID: **30**

Type: **not specified**

GIF++ Plans 2024 - Group 1

Session Classification: Working Group 7: Common test facilities

Contribution ID: **31**

Type: **not specified**

GIF++/Test Beam Plans 2024 - Group 2

Session Classification: Working Group 7: Common test facilities

Contribution ID: 32

Type: **not specified**

Outgassing and Ageing Laboratory

Thursday 1 February 2024 17:25 (20 minutes)

Presenters: VOROBEV, Konstantin (National Research Nuclear University MEPhI (RU)); ZHUKOV, Konstantin (Russian Academy of Sciences (RU)); GUIDA, Roberto (CERN)

Session Classification: Working Group 7: Common test facilities

Contribution ID: **33**

Type: **not specified**

Next steps with WPs

Thursday 1 February 2024 11:30 (1 hour)

Plenary discussion on the next organisational steps with WPs.

- approvals and reviews
- membership
- start of activities
- contact with FAs
- MoU addenda

Session Classification: Work Packages

Contribution ID: 34

Type: **not specified**

Newest developments of MRPCs

Tuesday 30 January 2024 09:25 (25 minutes)

Presenters: WANG, YI; WANG, Yi (Tsinghua University); WANG, Yi (Tsinghua University (CN))

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

Contribution ID: 35

Type: **not specified**

The Future of TPC R&D

Tuesday 30 January 2024 10:45 (25 minutes)

Presenter: GONZALEZ DIAZ, Diego (Universidade de Santiago de Compostela (ES))

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

Contribution ID: **36**

Type: **not specified**

Drift chamber developments for CEPC

Tuesday 30 January 2024 09:00 (25 minutes)

Presenter: ZHAO, Guang (Institute of High Energy Physics)

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

Contribution ID: 37

Type: **not specified**

High rate capable RPCs : technical challenges

Tuesday 30 January 2024 09:50 (25 minutes)

Presenter: AIELLI, Giulio (INFN e Universita Roma Tor Vergata (IT))

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

Contribution ID: **38**

Type: **not specified**

The vertical and horizontal drift detectors in DUNE

Tuesday 30 January 2024 11:10 (25 minutes)

Presenter: DAWSON, Jaime Victoria (Centre National de la Recherche Scientifique (FR))

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

Contribution ID: 39

Type: **not specified**

The organisation of the WG1 of DRD1. Discussion

Tuesday 30 January 2024 11:35 (25 minutes)

Presenters: RESNATI, Filippo (CERN); DEPPNER, Ingo-Martin (Physikalisches Institut der Universität Heidelberg); MOLERI, Luca (Weizmann Institute of Science (IL)); TYTGAT, Michael (Vrije Universiteit Brussel (BE)); COLAS, Paul (Université Paris-Saclay (FR)); WINTZ, Peter (Forschungszentrum Juelich GmbH (DE))

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

Contribution ID: 40

Type: **not specified**

Applications of RPCs for muon systems

Tuesday 30 January 2024 15:50 (20 minutes)

Presenter: AIELLI, Giulio (INFN e Universita Roma Tor Vergata (IT))

Session Classification: Working Group 2: Applications

Contribution ID: 41

Type: **not specified**

The CYGNO experiment

Tuesday 30 January 2024 17:10 (20 minutes)

Presenter: DHO , Giorgio

Session Classification: Working Group 2: Applications

Contribution ID: 42

Type: **not specified**

IDEA/FCC Muon system with μ RWELL

Tuesday 30 January 2024 16:30 (20 minutes)

Presenter: FARINELLI, Riccardo (Universita e INFN, Ferrara (IT))

Session Classification: Working Group 2: Applications

Contribution ID: 43

Type: **not specified**

BHEP applications: neutron science

Tuesday 30 January 2024 16:10 (20 minutes)

Presenter: CROCI, Gabriele (Universita & INFN, Milano-Bicocca (IT))

Session Classification: Working Group 2: Applications

Contribution ID: 44

Type: **not specified**

Mu2e experiment and innovations of the Mu2eTracker

Tuesday 30 January 2024 16:50 (20 minutes)

Presenter: MUKHERJEE, Aseet (FNAL)

Session Classification: Working Group 2: Applications

Contribution ID: 45

Type: **not specified**

WG2 organisation

Tuesday 30 January 2024 15:30 (20 minutes)

Session Classification: Working Group 2: Applications

Contribution ID: 46

Type: **not specified**

Simulation of the radiation field in GIF++ (12' + 3')

Wednesday 31 January 2024 14:45 (15 minutes)

Presenter: FERRARA, Nicola (Universita e INFN, Bari (IT))

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

Contribution ID: 47

Type: **not specified**

DRD1 Detector School

Thursday 1 February 2024 10:00 (30 minutes)

Previous experience (RD51 school)

Plans for a 2024 DRD1 School

Discussion

Presenter: BRUNBAUER, Florian Maximilian (CERN)

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

Contribution ID: 48

Type: **not specified**

WG8 scope and introduction

Thursday 1 February 2024 09:00 (30 minutes)

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

Contribution ID: 49

Type: **not specified**

Topical workshops, outreach & career promotion

Thursday 1 February 2024 09:30 (30 minutes)

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

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

Contribution ID: 50

Type: **not specified**

Resources and DRD1 Notes

Thursday 1 February 2024 10:30 (30 minutes)

Presenters: PAOLONI, Alessandro (INFN e Laboratori Nazionali di Frascati (IT)); BRUNBAUER, Florian Maximilian (CERN)

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

Contribution ID: 51

Type: **not specified**

Presentation of the WG6 "Detector production and industrialisation"

Friday 2 February 2024 09:00 (10 minutes)

Presenter: JEANNEAU, Fabien (Université Paris-Saclay (FR))

Session Classification: Working Group 6: Detector production

Contribution ID: 52

Type: **not specified**

Saclay's MPGD workshop

Friday 2 February 2024 09:25 (20 minutes)

Presenter: MORENO, Brahim Alain (Université Paris-Saclay (FR))

Session Classification: Working Group 6: Detector production

Contribution ID: 53

Type: **not specified**

T2K TPC production

Friday 2 February 2024 09:45 (20 minutes)

Presenter: DELBART, Alain (Université Paris-Saclay (FR))

Session Classification: Working Group 6: Detector production

Contribution ID: 54

Type: **not specified**

Gap RPC production facility @ KODEL

Friday 2 February 2024 10:05 (15 minutes)

Presenter: LEE, Kyong Sei (Korea University (KR))

Session Classification: Working Group 6: Detector production

Contribution ID: 55

Type: **not specified**

RPC production ?

Presenter: IASELLI, Giuseppe (Universita e INFN, Bari (IT))

Session Classification: Working Group 6: Detector production

Contribution ID: 56

Type: **not specified**

New collaboration for new wires

Friday 2 February 2024 10:20 (10 minutes)

Presenter: CHARLES, Gabriel (Université Paris-Saclay (FR))

Session Classification: Working Group 6: Detector production

Contribution ID: 57

Type: **not specified**

The ALERT project

Friday 2 February 2024 10:30 (20 minutes)

Presenter: CHARLES, Gabriel (Université Paris-Saclay (FR))

Session Classification: Working Group 6: Detector production

Contribution ID: 58

Type: **not specified**

Introduction to WG5

Wednesday 31 January 2024 15:00 (30 minutes)

Presenters: LUPBERGER, Michael (University of Bonn (DE)); LUPBERGER, Michael (University of Bonn)

Session Classification: Working Group 5: Electronics for gaseous detectors

Contribution ID: 59

Type: **not specified**

Development of front-end ASICs for micro-pattern gas detectors emphasized with TPC

Wednesday 31 January 2024 15:30 (20 minutes)

Presenters: Prof. DENG, Zhi (Tsinghua University (CN)); Prof. DENG, Zhi

Session Classification: Working Group 5: Electronics for gaseous detectors

Contribution ID: **60**

Type: **not specified**

Relation with DRD7

Wednesday 31 January 2024 15:50 (20 minutes)

Presenters: BREGANT, Marco (Universidade de Sao Paulo (BR)); MARTOIU, Sorin (Horia Hulubei National Institute of Physics and Nuclear Engineering (RO)); MARTOIU, Sorin; MARTOIU, Sorin

Session Classification: Working Group 5: Electronics for gaseous detectors

Contribution ID: **61**

Type: **not specified**

New ASICs for gaseous detectors: HGCROC and HKROC

Wednesday 31 January 2024 16:20 (20 minutes)

Presenter: Dr DE LA TAILLE, Christophe (OMEGA (FR))

Session Classification: Working Group 5: Electronics for gaseous detectors

Contribution ID: **62**

Type: **not specified**

Stabilized Voltage Divider

Wednesday 31 January 2024 16:40 (20 minutes)

Presenter: KRAUSS, Jakob (University of Bonn)

Session Classification: Working Group 5: Electronics for gaseous detectors

Contribution ID: 63

Type: **not specified**

Scalable Readout System

Wednesday 31 January 2024 17:00 (20 minutes)

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

Session Classification: Working Group 5: Electronics for gaseous detectors

Contribution ID: 64

Type: **not specified**

XPU parallel processing unit

Wednesday 31 January 2024 17:20 (20 minutes)

Presenter: Dr BIRA, Calin (Universitatea Nationala de Stiinta si Tehnologie Politehnica Bucuresti (RO))

Session Classification: Working Group 5: Electronics for gaseous detectors

Contribution ID: 65

Type: **not specified**

DRD1 Test beam Semi Permanent Installation

Thursday 1 February 2024 15:25 (10 minutes)

Presenter: TSIPOLITIS, Yorgos (National Technical Univ. of Athens (GR))

Session Classification: Working Group 7: Common test facilities

Contribution ID: 66

Type: **not specified**

Long-term and aging studies: the example of CMS Muon system

Thursday 1 February 2024 17:05 (20 minutes)

Presenter: KUZNETSOVA, Katerina (University of Florida (US))

Session Classification: Working Group 7: Common test facilities

Contribution ID: 67

Type: **not specified**

CERN MPT Workshop

Friday 2 February 2024 09:10 (15 minutes)

Presenters: OLIVERI, Eraldo (CERN); DE OLIVEIRA, Rui (CERN)

Session Classification: Working Group 6: Detector production