

3rd DRD4 Collaboration Meeting



Report of Contributions

Contribution ID: 96

Type: **not specified**

Cherenkov detector development for MARQ spectrometer at J-PARC

Friday 11 April 2025 09:00 (20 minutes)

Challenges involved in the development of a new Cherenkov detector for MARQ will be described.

Presenter: Prof. SUZUKI, Ken (University of Osaka)

Session Classification: Working Group 2 meeting (open to the whole DRD4 community)

Contribution ID: 97

Type: **not specified**

Green radiators: Update on gas radiator development

Friday 11 April 2025 09:25 (20 minutes)

Presenter: HALLEWELL, Gregory (Centre National de la Recherche Scientifique (FR))

Session Classification: Working Group 2 meeting (open to the whole DRD4 community)

Contribution ID: **98**

Type: **not specified**

Summary of “Brainstorming R&D organic scintillators”

Friday 11 April 2025 09:50 (15 minutes)

Presenter: AUFFRAY HILLEMANN, Etienne (CERN)

Session Classification: Working Group 5 meeting (open to the whole DRD4 community)

Contribution ID: 99

Type: **not specified**

R&D on scintillating fibers and SPAD array sensor readout for future neutrino experiments

Friday 11 April 2025 10:10 (15 minutes)

Presenter: DIEMINGER, Till Conrad (ETH Zurich (CH))

Session Classification: Working Group 5 meeting (open to the whole DRD4 community)

Contribution ID: **100**

Type: **not specified**

Development of a scintillating fiber tracker with SiPM readout for a space-borne cosmic-ray detector

Friday 11 April 2025 10:30 (15 minutes)

Presenter: PILLERA, Roberta (Universita e INFN, Bari (IT))

Session Classification: Working Group 5 meeting (open to the whole DRD4 community)

Contribution ID: **101**

Type: **not specified**

Performance of an Optical TPC Geant4 Simulation with Opticks GPU-Accelerated Photon Propagation

Thursday 10 April 2025 14:55 (20 minutes)

based on <https://arxiv.org/abs/2502.13215>

Presenter: PARMAKSIZ, Ilker

Session Classification: Working Group 4 meeting (open to the whole DRD4 community)

Contribution ID: **102**

Type: **not specified**

WG1 Introduction

Wednesday 9 April 2025 09:00 (5 minutes)

Presenter: RETIERE, Fabrice

Session Classification: Working Group 1

Contribution ID: **103**

Type: **not specified**

[TBC] The Status of the PMTs in JUNO

Session Classification: Working Group 1

Contribution ID: **104**

Type: **not specified**

The various aspects of the PMT in KM3NeT

Presenter: SIMONELLI, Andreino

Session Classification: Working Group 1

Contribution ID: **105**

Type: **not specified**

Status and prospects for the HUNT project

Presenter: YOU, Xiaohao

Session Classification: Working Group 1

Contribution ID: **106**

Type: **not specified**

Reviewing the Performance of Photek's Single Photon Timing Detectors

Wednesday 9 April 2025 09:10 (20 minutes)

Presenter: MARKFORT, Amelia

Session Classification: Working Group 1

Contribution ID: **107**

Type: **not specified**

Systematic approach of measuring MCP-PMT performance parameters

Thursday 10 April 2025 09:30 (25 minutes)

Presenters: LEHMANN, Albert (University Erlangen-Nuremberg); LEHMANN, Albert Alwin (Friedrich Alexander Univ. Erlangen (DE))

Session Classification: Working Group 1

Contribution ID: **108**

Type: **not specified**

Detailed study of afterpulses in MCP-PMTs

Presenter: COSTI, Gabriele

Session Classification: Working Group 1

Contribution ID: **109**

Type: **not specified**

The fast timing 2 inch MCP-PMT with PbF window

Presenter: CHEN, Linyue

Session Classification: Working Group 1

Contribution ID: **110**

Type: **not specified**

Large area MCPs: performance and new developments

Wednesday 9 April 2025 14:00 (20 minutes)

Presenter: POPECKI, Mark (Incom, Inc.)

Session Classification: Working Group 1

Contribution ID: 111

Type: **not specified**

Single Photon Avalanche Diode: Neutron impact

Wednesday 9 April 2025 15:30 (15 minutes)

Presenter: GARDINOVACKI, Boris (Jozef Stefan Institute (SI))

Session Classification: Working Group 1

Contribution ID: **112**

Type: **not specified**

Neutron damage on CMOS SPAD

Wednesday 9 April 2025 15:50 (20 minutes)

Presenter: RATTI, Lodovico (Pavia University and INFN (IT))

Session Classification: Working Group 1

Contribution ID: **113**

Type: **not specified**

SPAD: Compendium plan

Presenter: RETIERE, Fabrice

Session Classification: Working Group 1

Contribution ID: 114

Type: **not specified**

[FBK TBC] SPAD Array configuration: conventional tech, FSI with trench, performance comparison

Session Classification: Working Group 1

Contribution ID: 115

Type: **not specified**

[FBK TBC] SPAD Array configuration: Back-side illuminated (BSI)

Session Classification: Working Group 1

Contribution ID: **116**

Type: **not specified**

SPAD Array configuration: Compendium plan

Presenter: GOLLA, Alberto Giacomo (Fondazione Bruno Kessler)

Session Classification: Working Group 1

Contribution ID: **117**

Type: **not specified**

Optics: getting light into SPAD

Wednesday 9 April 2025 16:30 (15 minutes)

Presenter: HAEFELI, Guido (EPFL - Ecole Polytechnique Federale Lausanne (CH))

Session Classification: Working Group 1

Contribution ID: **118**

Type: **not specified**

SPAD Avalanche modeling

Wednesday 9 April 2025 16:50 (15 minutes)

Presenter: KOULOSUSAS, Seraphim

Session Classification: Working Group 1

Contribution ID: **119**

Type: **not specified**

SPAD Efficiency modeling

Wednesday 9 April 2025 17:10 (15 minutes)

Presenter: DE ST. CROIX, Austin

Session Classification: Working Group 1

Contribution ID: 120

Type: **not specified**

SPAD Dark noise and after-pulsing

Presenter: RAYMOND, Kurtis

Session Classification: Working Group 1

Contribution ID: **121**

Type: **not specified**

SPAD Light emission

Presenter: RAYMOND, Kurtis

Session Classification: Working Group 1

Contribution ID: 122

Type: **not specified**

SPAD nuisance processes and compendium plan

Wednesday 9 April 2025 17:30 (20 minutes)

Presenter: LEWIS, Harry (TRIUMF)

Session Classification: Working Group 1

Contribution ID: 123

Type: **not specified**

Digital SiPM: Photon to Digital Converter

Wednesday 9 April 2025 11:10 (30 minutes)

Presenter: Prof. CHARLEBOIS, Serge (Université de Sherbrooke)

Session Classification: Working Group 1

Contribution ID: 124

Type: **not specified**

Digital SiPM: AQUA

Wednesday 9 April 2025 11:45 (20 minutes)

Presenters: Prof. CHARBON, Edoardo (EPFL); CHARBON, Edoardo

Session Classification: Working Group 1

Contribution ID: 125

Type: **not specified**

Digital SiPM in compendium

Wednesday 9 April 2025 12:10 (20 minutes)

Author: RETIERE, Fabrice

Co-author: D'ASCENZO, Nicola (Huazhong University of Science and Technology)

Presenters: D'ASCENZO, Nicola (Huazhong University of Science and Technology); RETIERE, Fabrice

Session Classification: Working Group 1

Contribution ID: 126

Type: **not specified**

Digital SiPM: Compendium plan

Presenter: D'ASCENZO, Nicola (Huazhong University of Science and Technology)

Session Classification: Working Group 1

Contribution ID: 127

Type: **not specified**

Characterization setups: overview and compendium plan

Thursday 10 April 2025 09:00 (30 minutes)

Author: QIANS, Sen Qian

Presenters: QIAN, Sen (Chinese Academy of Sciences (CN)); QIANS, Sen Qian

Session Classification: Working Group 1

Contribution ID: 128

Type: **not specified**

Characterisation setups: compendium plan

Presenters: QIAN, Sen (Chinese Academy of Sciences (CN)); QIANS, Sen Qian

Session Classification: Working Group 1

Contribution ID: **129**

Type: **not specified**

Discussion, plans and scope of work in the compendium.

Thursday 10 April 2025 10:00 (50 minutes)

Discussion and plans for the compendium and work within WG1 outside the compendium

Presenter: RETIERE, Fabrice

Session Classification: Working Group 1

Contribution ID: **130**

Type: **not specified**

CERN Wordpress Infrastructure

Thursday 10 April 2025 15:20 (25 minutes)

Presenters: DEL PIANTA, Lorenzo (CERN); GONZALVO HIDALGO, Alejandro (Valencia Polytechnic University (ES)); YDE, Joachim Valdemar (CERN)

Session Classification: Working Group 4 meeting (open to the whole DRD4 community)

Contribution ID: **131**

Type: **not specified**

The Status of the PMTs in JUNO

Thursday 10 April 2025 11:20 (20 minutes)

Presenter: Prof. WANG, Wei (Sun Yat-Sen University)

Session Classification: Working Group 1

Contribution ID: 132

Type: **not specified**

The various aspects of the PMT in KM3NeT

Thursday 10 April 2025 11:45 (20 minutes)

Presenter: SIMONELLI, Andreino

Session Classification: Working Group 1

Contribution ID: 133

Type: **not specified**

Status and prospects for the HUNT project

Thursday 10 April 2025 12:10 (20 minutes)

Presenter: Dr YOU, xiaohao (IHEP)

Session Classification: Working Group 1

Contribution ID: 134

Type: **not specified**

The fast timing 2 inch MCP-PMT with PbF window

Wednesday 9 April 2025 09:55 (20 minutes)

Presenter: CHEN, Lingyue

Session Classification: Working Group 1

Contribution ID: 135

Type: **not specified**

Detailed study of afterpulses in MCP-PMTs

Wednesday 9 April 2025 10:20 (15 minutes)

Presenter: COSTI, Gabriele

Session Classification: Working Group 1

Contribution ID: 136

Type: **not specified**

MCP-PMT: Compendium plan

Presenter: ROMANO, Angela (University of Birmingham (GB))

Session Classification: Working Group 1

Contribution ID: 137

Type: **not specified**

Superconducting Nanowire

Presenter: KORZH, Boris (Université de Genève)

Session Classification: Working Group 6 meeting (open to the whole DRD4 community)

Contribution ID: 138

Type: **not specified**

The Development of a FPMT readout ASIC: FMPROC

Presenter: XIONGBO, Yan

Session Classification: Working Group 3 meeting (open to the whole DRD4 community)

Contribution ID: **139**

Type: **not specified**

ATLAS HGTD ALTIROC ASIC

Thursday 10 April 2025 13:40 (20 minutes)

Presenter: SEGUIN-MOREAU, Nathalie (OMEGA - Ecole Polytechnique - CNRS/IN2P3)

Session Classification: Working Group 3 meeting (open to the whole DRD4 community)

Contribution ID: 140

Type: **not specified**

Development of multichannel mixed-signal ASICs for SiPM Readout in 110 nm CMOS technology

Thursday 10 April 2025 14:05 (20 minutes)

Presenter: DURANDO, Stefano (INFN Torino (IT))

Session Classification: Working Group 3 meeting (open to the whole DRD4 community)

Contribution ID: **141**

Type: **not specified**

Optical elements and technologies for RICH applications

Thursday 10 April 2025 14:30 (20 minutes)

Presenter: SULC, Miroslav (Technical University of Liberec)

Session Classification: Working Group 3 meeting (open to the whole DRD4 community)

Contribution ID: **142**

Type: **not specified**

Skipper CCD

Presenter: BRAGA, Davide (FERMILAB)

Session Classification: Working Group 6 meeting (open to the whole DRD4 community)

Contribution ID: **143**

Type: **not specified**

Radio Frequency PMT

Thursday 10 April 2025 16:50 (20 minutes)

Presenter: MARGARYAN, Amur (A. I. Alikhanyan National Science Laboratory (Yerevan Physics Institute) AANL)

Session Classification: Working Group 6 meeting (open to the whole DRD4 community)

Contribution ID: 144

Type: **not specified**

Recent developments of amorphous selenium-based X-ray detectors

Thursday 10 April 2025 16:30 (20 minutes)

Presenter: ABBASZADEH, Shiva (University of California, Santa Cruz)

Session Classification: Working Group 6 meeting (open to the whole DRD4 community)

Contribution ID: 145

Type: **not specified**

SPAD array configurations

Wednesday 9 April 2025 15:05 (20 minutes)

Conventional tech, FSI with trench. Performance comparison [FBK] + Back-side illuminated. [FBK] (30 min) + Compendium plan for this section (15 min)

Presenter: GOLLA, Alberto Giacomo (Fondazione Bruno Kessler)

Session Classification: Working Group 1

Contribution ID: 146

Type: **not specified**

Introduction and DRD4 general news

Tuesday 8 April 2025 14:30 (10 minutes)

Presenter: FIORINI, Massimiliano (Universita e INFN, Ferrara (IT))

Session Classification: DRD4 Plenary Meeting (open to the whole DRD4 community)

Contribution ID: 147

Type: **not specified**

Winner of the DRD4 logo contest

Tuesday 8 April 2025 14:40 (5 minutes)

Presenter: WILKINSON, Guy (University of Oxford (GB))

Session Classification: DRD4 Plenary Meeting (open to the whole DRD4 community)

Contribution ID: 148

Type: **not specified**

Status of AIDAinnova call and plans

Tuesday 8 April 2025 14:45 (20 minutes)

Presenters: GIACOMELLI, Paolo (Universita e INFN, Bologna (IT)); GIACOMELLI, Paolo (INFN Sezione di Bologna); GIACOMELLI, Paolo (Universita e INFN, Bologna (IT))

Session Classification: DRD4 Plenary Meeting (open to the whole DRD4 community)

Contribution ID: **149**

Type: **not specified**

Status of the DRD4 MoU

Tuesday 8 April 2025 15:15 (25 minutes)

Presenter: FIORINI, Massimiliano (Universita e INFN, Ferrara (IT))

Session Classification: DRD4 Plenary Meeting (open to the whole DRD4 community)

Contribution ID: **150**

Type: **not specified**

DRD4 test beam and irradiation campaigns

Friday 11 April 2025 11:20 (10 minutes)

Presenter: JAKOBSEN, Sune (CERN)

Session Classification: DRD4 Plenary Meeting (open to the whole DRD4 community)

Contribution ID: **151**

Type: **not specified**

Report on WP3 activities

Friday 11 April 2025 11:30 (20 minutes)

Presenter: CARDINALE, Roberta (INFN e Universita Genova (IT))

Session Classification: DRD4 Plenary Meeting (open to the whole DRD4 community)

Contribution ID: **152**

Type: **not specified**

Report on WP1 activities

Tuesday 8 April 2025 15:50 (30 minutes)

Presenter: PESTOTNIK, Rok (Jozef Stefan Institute (SI))

Session Classification: DRD4 Plenary Meeting (open to the whole DRD4 community)

Contribution ID: **153**

Type: **not specified**

Report on WP2 activities

Tuesday 8 April 2025 16:30 (30 minutes)

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

Session Classification: DRD4 Plenary Meeting (open to the whole DRD4 community)

Contribution ID: 154

Type: **not specified**

Report on WP4 activities

Friday 11 April 2025 11:55 (20 minutes)

Presenter: Prof. LAPINGTON, Jon (University of Leicester (GB))

Session Classification: DRD4 Plenary Meeting (open to the whole DRD4 community)

Contribution ID: 155

Type: **not specified**

Report on WP5 activities

Friday 11 April 2025 12:20 (15 minutes)

Presenter: LEVERINGTON, Blake (Heidelberg University (DE))

Session Classification: DRD4 Plenary Meeting (open to the whole DRD4 community)

Contribution ID: 156

Type: **not specified**

DRD4 common activities: discussion

Friday 11 April 2025 12:40 (20 minutes)

Session Classification: DRD4 Plenary Meeting (open to the whole DRD4 community)

Contribution ID: 157

Type: **not specified**

Photonis Fast Timing MCP-PMT

Wednesday 9 April 2025 09:35 (15 minutes)

Presenters: ORLOV, Dmitry; ORLOV, Dmitry (Photonis Netherlands)

Session Classification: Working Group 1

Contribution ID: **158**

Type: **not specified**

MCP-PMT: Compendium plan

Wednesday 9 April 2025 10:40 (10 minutes)

Presenter: ROMANO, Angela (University of Birmingham (GB))

Session Classification: Working Group 1

Contribution ID: **159**

Type: **not specified**

Status of LAPPD studies at JSI

Wednesday 9 April 2025 14:25 (15 minutes)

Presenters: KORPAR, Samo; KORPAR, Samo (Jozef Stefan Institute (SI))

Session Classification: Working Group 1

Contribution ID: **160**

Type: **not specified**

SPAD/SiPM compendium wrap-up

Wednesday 9 April 2025 17:55 (20 minutes)

Presenter: RETIERE, Fabrice

Session Classification: Working Group 1

Contribution ID: **161**

Type: **not specified**

SiPMs assessement with application to CBM RiCH

Wednesday 9 April 2025 14:45 (15 minutes)

Hamamatsu and OnSemi/Sensl SiPM assessment and application to CBM RICH

Presenter: PENA RODRIGUEZ, Jesus (Bergische Universität Wuppertal)

Session Classification: Working Group 1

Contribution ID: **162**

Type: **not specified**

WP4.4 Introduction

Author: Prof. LAPINGTON, Jon (University of Leicester (GB))

Presenter: Prof. LAPINGTON, Jon (University of Leicester (GB))

Session Classification: Work Package 4 (restricted meeting to WP4 participants only)

Contribution ID: **163**

Type: **not specified**

WP4.4.2 Progress in segmented SiPM fabrication and Ball-Bonding tests

Author: GOLLA, Alberto Giacomo (Fondazione Bruno Kessler (IT))

Presenter: GOLLA, Alberto Giacomo (Fondazione Bruno Kessler (IT))

Session Classification: Work Package 4 (restricted meeting to WP4 participants only)

Contribution ID: **164**

Type: **not specified**

WP4.4.2 TBD

Author: SANUY, Andreu (University of Barcelona)

Co-author: GASCON, David (University of Barcelona (ES))

Presenters: GASCON, David (University of Barcelona (ES)); SANUY, Andreu (University of Barcelona)

Session Classification: Work Package 4 (restricted meeting to WP4 participants only)

Contribution ID: 165

Type: **not specified**

WP4.4.2 Advanced RF Timer of Single Electrons and Photons: Status and Perspectives.

Author: MARGARYAN, Amur (A. I. Alikhanyan National Science Laboratory (Yerevan Physics Institute) AANL)

Presenter: MARGARYAN, Amur (A. I. Alikhanyan National Science Laboratory (Yerevan Physics Institute) AANL)

Session Classification: Work Package 4 (restricted meeting to WP4 participants only)

Contribution ID: 166

Type: **not specified**

WP4.4.3: Update of study on the DTOF detector for STCF experiment

Author: SHAO, Ming (University of Science and Technology of China)

Presenter: SHAO, Ming (University of Science and Technology of China)

Session Classification: Work Package 4 (restricted meeting to WP4 participants only)

Contribution ID: 167

Type: **not specified**

WP4.4.3 Progress on WP4.4.3

Author: HARNEW, Neville (University of Oxford (GB))

Co-author: WILKINSON, Guy (University of Oxford (GB))

Presenters: HARNEW, Neville (University of Oxford (GB)); WILKINSON, Guy (University of Oxford (GB))

Session Classification: Work Package 4 (restricted meeting to WP4 participants only)

Contribution ID: **168**

Type: **not specified**

WP4.4 Discussions - all

Presenter: Prof. LAPINGTON, Jon (University of Leicester (GB))

Session Classification: Work Package 4 (restricted meeting to WP4 participants only)

Contribution ID: **169**

Type: **not specified**

Vacuum Photo-Detector activities in X'ian

Presenter: Prof. CHEN, Ping

Session Classification: Work Package 2 (restricted meeting to WP2 participants only)

Contribution ID: 170

Type: **not specified**

Vacuum Photo-Detector activities in Birmingham

Presenter: ROMANO, Angela (University of Birmingham (GB))

Session Classification: Work Package 2 (restricted meeting to WP2 participants only)

Contribution ID: 171

Type: **not specified**

Progress of the LAPPDs studies at Ljubljana

Presenters: KORPAR, Samo; KORPAR, Samo (Jozef Stefan Institute (SI))

Session Classification: Work Package 2 (restricted meeting to WP2 participants only)

Contribution ID: 172

Type: **not specified**

Progress in using Timepix4 with MCP

Presenter: FIORINI, Massimiliano (Universita e INFN, Ferrara (IT))

Session Classification: Work Package 2 (restricted meeting to WP2 participants only)

Contribution ID: 173

Type: **not specified**

Progress in using the PICMIC concept with MCP

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

Session Classification: Work Package 2 (restricted meeting to WP2 participants only)

Contribution ID: 174

Type: **not specified**

Superconducting nanowire

Wednesday 9 April 2025 12:35 (20 minutes)

Presenters: KORZH, Boris (Université de Genève); KORZH, Boris Alexander (Universite de Geneve (CH))

Session Classification: Working Group 1

Contribution ID: 175

Type: **not specified**

Social dinner information

Wednesday 9 April 2025 19:00 (10 minutes)

Contribution ID: 176

Type: **not specified**

Prospects for advanced fiber detectors

Thursday 10 April 2025 17:10 (20 minutes)

Author: PENZO, Aldo (University of Iowa (US))

Presenter: PENZO, Aldo (University of Iowa (US))

Session Classification: Working Group 6 meeting (open to the whole DRD4 community)

Contribution ID: 177

Type: **not specified**

Newly developed fibres for the future

Thursday 10 April 2025 17:30 (20 minutes)

Presenter: TICHINDELEAN, Teo (Molex)

Session Classification: Working Group 6 meeting (open to the whole DRD4 community)

Contribution ID: 178

Type: **not specified**

Report from the CB Chair

Friday 11 April 2025 11:15 (5 minutes)

Presenter: WILKINSON, Guy (University of Oxford (GB))

Session Classification: DRD4 Plenary Meeting (open to the whole DRD4 community)