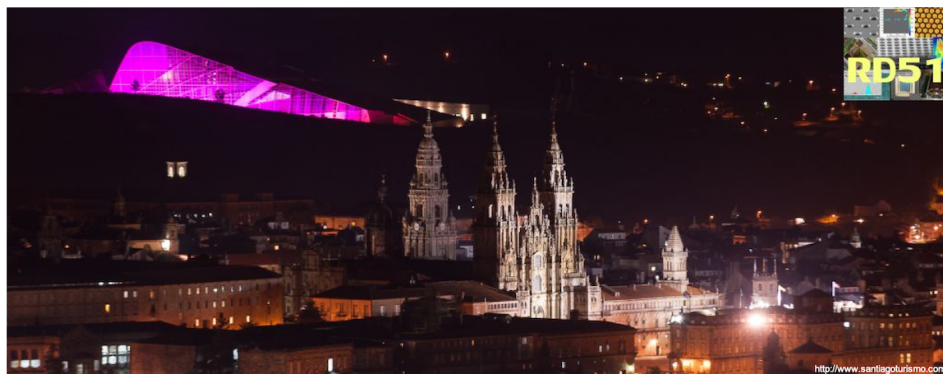


RD51 collaboration meeting and topical workshop on New Horizons in Time Projection Chambers



Report of Contributions

Contribution ID: 2

Type: **not specified**

Transport of primary particles and ionization electrons in Garfield++

Monday 5 October 2020 14:10 (30 minutes)

Presenter: SCHINDLER, Heinrich (CERN)

Session Classification: TPC workshop - Fundamentals

Contribution ID: 3

Type: **not specified**

A modern approach to electron transport: a crash course in Pyboltz/MagBoltz

Monday 5 October 2020 14:40 (30 minutes)

Presenter: MCDONALD, Austin

Session Classification: TPC workshop - Fundamentals

Contribution ID: 4

Type: **not specified**

Transfer reactions leading to Penning effect

Monday 5 October 2020 16:40 (30 minutes)

Presenter: SAHIN, Ozkan (Uludag University (TR))

Session Classification: TPC workshop - Fundamentals

Contribution ID: 5

Type: **not specified**

Transfer reactions leading to scintillation

Monday 5 October 2020 17:10 (30 minutes)

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

Session Classification: TPC workshop - Fundamentals

Contribution ID: 7

Type: **not specified**

Ion Mobility

Monday 5 October 2020 16:00 (40 minutes)

Presenter: CORTEZ, André (LIP-Coimbra)

Session Classification: TPC workshop - Fundamentals

Contribution ID: 8

Type: **not specified**

Ions backflow in TPCs: simulations, measurements and suppression

Monday 5 October 2020 15:10 (30 minutes)

Presenter: ATTIE, David (CEA/DSM/DAPNIA/SPP)

Session Classification: TPC workshop - Fundamentals

Contribution ID: 9

Type: **not specified**

From the First TPC to the future: High-pressure gas TPCs

Tuesday 6 October 2020 14:00 (30 minutes)

Presenter: BROSS, Alan (Fermilab)

Session Classification: TPC workshop - Types and Applications

Contribution ID: **10**

Type: **not specified**

Low-Pressure TPCs: techniques and Applications

Tuesday 6 October 2020 14:30 (30 minutes)

Presenter: LOOMBA, Dinesh (University of New Mexico)

Session Classification: TPC workshop - Types and Applications

Contribution ID: **11**

Type: **not specified**

Towards current Active Targets & TPCs for Nuclear Physics

Tuesday 6 October 2020 15:00 (30 minutes)

Presenter: POLLACCO, Emanuel (CEA)

Session Classification: TPC workshop - Types and Applications

Contribution ID: **12**

Type: **not specified**

Electroluminescence TPCs

Tuesday 6 October 2020 15:30 (30 minutes)

Presenter: JONES, Ben (UTA)

Session Classification: TPC workshop - Types and Applications

Contribution ID: **13**

Type: **not specified**

Optical TPC: current and future developments

Tuesday 6 October 2020 16:20 (30 minutes)

Presenter: DEISTING, Alexander (Royal Holloway University of London (GB))

Session Classification: TPC workshop - Types and Applications

Contribution ID: 14

Type: **not specified**

Status and prospects of the argon Dual-phase TPCs

Tuesday 6 October 2020 16:50 (30 minutes)

Presenter: SANTORELLI, Roberto (Centro de Investigaciones Energéticas Medioambientales y Tecnológicas)

Session Classification: TPC workshop - Types and Applications

Contribution ID: 15

Type: **not specified**

Xenon dual-phase TPCs

Tuesday 6 October 2020 17:20 (30 minutes)

Presenter: CHEPEL, Vitaly

Session Classification: TPC workshop - Types and Applications

Contribution ID: **16**

Type: **not specified**

Development of a Tetramethylsilane TPC

Tuesday 6 October 2020 17:50 (30 minutes)

Presenter: WU, Shuoxing (ETH Zurich (CH))

Session Classification: TPC workshop - Types and Applications

Contribution ID: 17

Type: **not specified**

Front End Electronics for future TPCs

Wednesday 7 October 2020 14:00 (30 minutes)

Presenter: BREGANT, Marco (Universidade de Sao Paulo (BR))

Session Classification: TPC workshop - Readouts

Contribution ID: **18**

Type: **not specified**

Optical readout of TPCs with frame-based imaging sensors

Wednesday 7 October 2020 14:30 (30 minutes)

Presenter: BRUNBAUER, Florian Maximilian (CERN)

Session Classification: TPC workshop - Readouts

Contribution ID: **19**

Type: **not specified**

Solving common readout, DAQ and trigger problems with online digital techniques

Wednesday 7 October 2020 15:00 (30 minutes)

Presenters: TOLEDO ALARCON, Jose F. (Universidad Politecnica de Valencia); ESTEVE BOSCH, Raul (Universitat Politecnica de Valencia)

Session Classification: TPC workshop - Readouts

Contribution ID: 20

Type: **not specified**

Evolution of TPCs in accelerator experiments

Wednesday 7 October 2020 15:50 (30 minutes)

Presenter: GARABATOS CUADRADO, Chilo (GSI - Helmholtzzentrum für Schwerionenforschung GmbH (DE))

Session Classification: TPC workshop - Readouts

Contribution ID: 21

Type: **not specified**

Charge spreading with a Resistive-Capacitive coating

Wednesday 7 October 2020 16:50 (30 minutes)

Presenter: COLAS, Paul (Université Paris-Saclay (FR))

Session Classification: TPC workshop - Readouts

Contribution ID: 22

Type: **not specified**

GridPix for future experiments

Wednesday 7 October 2020 16:20 (30 minutes)

Presenter: LIGTENBERG, Cornelis (CERN)

Session Classification: TPC workshop - Readouts

Contribution ID: 24

Type: **not specified**

Physics of discharges in gaseous media, from the point of view of MPGD detectors

Thursday 8 October 2020 14:00 (30 minutes)

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

Session Classification: TPC workshop - Operation and Performance

Contribution ID: 26

Type: **not specified**

Techniques for TPC calibration: application to liquid and dual-phase Ar-TPCs

Thursday 8 October 2020 14:30 (30 minutes)

Presenter: MANEIRA, Jose (LIP Lisboa)

Session Classification: TPC workshop - Operation and Performance

Contribution ID: 27

Type: **not specified**

dE/dx measurement

Thursday 8 October 2020 15:00 (30 minutes)

Presenter: RADICIONI, Emilio (Universita e INFN, Bari (IT))

Session Classification: TPC workshop - Operation and Performance

Contribution ID: 28

Type: **not specified**

Track reconstruction and performance in high density environment

Thursday 8 October 2020 16:20 (30 minutes)

Presenter: IVANOV, Marian (GSI - Helmholtzzentrum für Schwerionenforschung GmbH (DE))

Session Classification: TPC workshop - Operation and Performance

Contribution ID: 29

Type: **not specified**

Multiplexing and track reconstruction in a TPC

Thursday 8 October 2020 16:50 (30 minutes)

Presenter: VANDENBROUCKE, Maxence (Université Paris-Saclay (FR))

Session Classification: TPC workshop - Operation and Performance

Contribution ID: **30**

Type: **not specified**

Calibration of space-charge effects and distortions of the electric field in the ALICE TPC

Thursday 8 October 2020 15:50 (30 minutes)

Presenter: HELLBAR, Ernst (Goethe University Frankfurt (DE))

Session Classification: TPC workshop - Operation and Performance

Contribution ID: **31**

Type: **not specified**

The spherical proportional gaseous detector and comparisons

Thursday 8 October 2020 17:20 (30 minutes)

Presenter: Dr GIOMATARIS, Ioanis (Université Paris-Saclay (FR))

Session Classification: TPC workshop - Operation and Performance

Contribution ID: **32**

Type: **not specified**

A Compact TPC for the sPHENIX Experiment at RHIC

Friday 9 October 2020 14:00 (30 minutes)

Presenter: DEHMELT, Klaus (Stony Brook University USA)

Session Classification: TPC workshop - Systems

Contribution ID: 33

Type: **not specified**

A high pressure TPC for the DUNE Near Detector

Friday 9 October 2020 15:00 (30 minutes)

Presenter: Dr LU, Xianguo (University of Oxford)

Session Classification: TPC workshop - Systems

Contribution ID: **34**

Type: **not specified**

The TPCs of the T2K experiment

Friday 9 October 2020 14:30 (30 minutes)

Presenter: GIGANTI, Claudio (LPNHE Paris (IN2P3/CNRS))

Session Classification: TPC workshop - Systems

Contribution ID: 35

Type: **not specified**

The ARIADNE Photographic LArTPC: status and future directions

Friday 9 October 2020 16:20 (30 minutes)

Presenter: MAVROKORIDIS, Konstantinos (University of Sheffield)

Session Classification: TPC workshop - Systems

Contribution ID: 36

Type: **not specified**

OTPC for the observation of the Migdal effect in nuclear scattering

Friday 9 October 2020 16:50 (30 minutes)

Presenter: Dr MAJEWSKI, Pawel (STFC/Rutherford Appleton Laboratory)

Session Classification: TPC workshop - Systems

Contribution ID: 37

Type: **not specified**

Directional Dark Matter searches with the CYGNO experiment

Friday 9 October 2020 15:30 (30 minutes)

Presenter: BARACCHINI, Elisabetta (Gran Sasso Science Institute)

Session Classification: TPC workshop - Systems

Contribution ID: **38**

Type: **not specified**

Closing talk

Friday 9 October 2020 17:20 (30 minutes)

Session Classification: TPC workshop - Systems

Contribution ID: 39

Type: **not specified**

Ion backflow suppression by the passive bi-polar grid

Tuesday 6 October 2020 09:00 (25 minutes)

Presenter: SHULGA, Evgeny (Weizmann Institute of Science (IL))

Session Classification: RD51CM - Working Group 1

Contribution ID: 40

Type: **not specified**

First results of the μ RWELL prototypes made by new techniques —PEDF, PEDP, DEF, DEP

Tuesday 6 October 2020 09:25 (25 minutes)

P = patterning, E = Etching, D = Drilling, F = Filling

Presenters: ZHOU, Yi (University of Science and Technology of China (CN)); LYU, You (University of Science and Technology of China (CN))

Session Classification: RD51CM - Working Group 1

Contribution ID: 41

Type: **not specified**

Developement of RWELL detectors for large area & high rate application

Tuesday 6 October 2020 09:50 (25 minutes)

Presenter: SONG, Guofeng (University of Science and Technology of China (CN))

Session Classification: RD51CM - Working Group 1

Contribution ID: 42

Type: **not specified**

Foreword

Monday 5 October 2020 14:00 (10 minutes)

Presenter: NYGREN, David

Session Classification: TPC workshop - Fundamentals

Contribution ID: 43

Type: **not specified**

Development of Micromegas detectors with resistive pads for high rate applications

Presenter: GERALIS, Theodoros (Nat. Cent. for Sci. Res. Demokritos (GR))

Session Classification: TPC workshop - Readouts

Contribution ID: 44

Type: **not specified**

A spectrometer composed of GEM-based TPCs for the measurement of the X17 boson.

Tuesday 6 October 2020 10:15 (25 minutes)

Presenter: NATAL DA LUZ, Hugo (Universidade de Sao Paulo (BR))

Session Classification: RD51CM - Working Group 1

Contribution ID: 45

Type: **not specified**

Optimized GEMs with micro-additive fabrication technique

Tuesday 6 October 2020 10:40 (25 minutes)

Presenter: FIORINI DA SILVA, Tiago (Universidade de Sao Paulo (BR))

Session Classification: RD51CM - Working Group 1

Contribution ID: 46

Type: **not specified**

A new imaging technology based on Compton X-ray scattering

Tuesday 6 October 2020 11:20 (25 minutes)

Presenters: SAA HERNANDEZ, Angela (Paul Scherrer Institute); SAA HERNANDEZ, Angela (Universidade de Santiago de Compostela (ES))

Session Classification: RD51CM - Working Group 1

Contribution ID: 47

Type: **not specified**

GEM-based detector for neutrons: a first prototype

Tuesday 6 October 2020 11:45 (25 minutes)

Presenters: DE ARRUDA SERRA FILHO, Lucas (University of Sao Paulo); DE ARRUDA SERRA FILHO, Lucas

Session Classification: RD51CM - Working Group 1

Contribution ID: 48

Type: **not specified**

Optimization of gaseous detectors for low energy XRF

Monday 5 October 2020 11:10 (20 minutes)

Presenter: Mr GROSSI ARAUJO DE SOUZA, Geovane (Universidade de Sao Paulo (BR))

Session Classification: RD51CM - Working Group 4

Contribution ID: 49

Type: **not specified**

Simulation of Space-charge in MPGDs with Elmer

Monday 5 October 2020 11:50 (20 minutes)

Presenter: PELLECCCHIA, Antonello (Universita e INFN, Bari (IT))

Session Classification: RD51CM - Working Group 4

Contribution ID: 50

Type: **not specified**

Electron and Ion Transport in Triple GEM detectors - an update

Monday 5 October 2020 10:25 (15 minutes)

Presenter: BAL, Aritra (Indian Institute of Technology Kharagpur)

Session Classification: RD51CM - Working Group 4

Contribution ID: 51

Type: **not specified**

Discharge and crosstalk mitigation for the GE21 system in CMS

Thursday 8 October 2020 12:20 (20 minutes)

Presenter: Dr MERLIN, Jeremie Alexandre (INFN-Bari)

Session Classification: RD51CM - Working Group 2

Contribution ID: 52

Type: **not specified**

Limits of spatial resolution of GEM-based detectors

Monday 5 October 2020 10:05 (20 minutes)

Presenter: MALTSEV, Timofei (Budker Institute of Nuclear Physics (RU))

Session Classification: RD51CM - Working Group 4

Contribution ID: 53

Type: **not specified**

Testing large size triple GEM chambers in mCBM experiment at SIS18 facility of GSI

Thursday 8 October 2020 11:40 (20 minutes)

Presenter: Mr KUMAR, Ajit (Variable Energy Cyclotron Centre)

Session Classification: RD51CM - Working Group 2

Contribution ID: 54

Type: **not specified**

Simulation of micro-structures for GEM optimization

Monday 5 October 2020 11:30 (20 minutes)

Presenter: SARAMELA, Thiago Badaró (nstitute of Physics of University of São Paulo)

Session Classification: RD51CM - Working Group 4

Contribution ID: 55

Type: **not specified**

R&D progress on resistive DLC

Friday 9 October 2020 09:00 (20 minutes)

Presenter: ZHOU, Yi (University of Science and Technology of China (CN))

Session Classification: RD51CM - Working Group 6

Contribution ID: 56

Type: **not specified**

CBM GEM Muon detector assembly and discussion on the opto-coupler based HV system

Friday 9 October 2020 09:20 (20 minutes)

Presenter: Dr DUBEY, Anand Kumar (VECC india)

Session Classification: RD51CM - Working Group 6

Contribution ID: 57

Type: **not specified**

Results of cosmic characterization of T2K MM1 and ERAM prototypes

Friday 9 October 2020 09:40 (20 minutes)

Presenter: LEHURAUX, Marion (Université Paris-Saclay (FR))

Session Classification: RD51CM - Working Group 6

Contribution ID: 58

Type: **not specified**

Update on the planarity of the Picosec Micromegas board

Friday 9 October 2020 11:10 (20 minutes)

Presenter: UTROBICIC, Antonija (CERN)

Session Classification: RD51CM - Working Group 6

Contribution ID: 59

Type: **not specified**

Update on the status of the housing and future sealed housing of the Picosec module

Friday 9 October 2020 11:30 (20 minutes)

Presenter: LISOWSKA, Marta (Wroclaw University of Science and Technology (PL))

Session Classification: RD51CM - Working Group 6

Contribution ID: **60**

Type: **not specified**

A highly segmented pad plane for the Active Target Time Projection Chamber (ACTAR TPC)”

Friday 9 October 2020 11:50 (20 minutes)

Presenter: ROGER, Thomas

Session Classification: RD51CM - Working Group 6

Contribution ID: 61

Type: **not specified**

Preliminary results on the response linearity and spatial resolution performances with the 1cmx1cm capacitive sharing pad readout for MPGDs

Friday 9 October 2020 12:10 (20 minutes)

Presenter: GNANVO, Kondo (Florida Institute of Technology, Melbourne, FL, USA)

Session Classification: RD51CM - Working Group 6

Contribution ID: **62**

Type: **not specified**

GEM-production scheme for sPHENIX TPC

Friday 9 October 2020 12:30 (20 minutes)

Presenter: DEHMELT, Klaus (Stony Brook University USA)

Session Classification: RD51CM - Working Group 6

Contribution ID: **63**

Type: **not specified**

Gaseous Detector R&D for Medical Physics at LMU

Friday 9 October 2020 10:00 (20 minutes)

Presenter: BORTFELDT, Jona (CERN)

Session Classification: RD51CM - Working Group 6

Contribution ID: **64**

Type: **not specified**

Signals in Resistive MPGDs: an introduction

Monday 5 October 2020 10:40 (10 minutes)

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

Session Classification: RD51CM - Working Group 4

Contribution ID: 65

Type: **not specified**

a Monte-Carlo simulation tool for gas scattering processes

Monday 5 October 2020 12:10 (20 minutes)

Presenters: CIUBOTARU, Dan Andrei (Horia Hulubei National Institute of Physics and Nuclear Engineer); RENDA, Michele (IFIN-HH)

Session Classification: RD51CM - Working Group 4

Contribution ID: 66

Type: **not specified**

Numerical study on the gain variation due to the gas-gap non-uniformity in large scale Micromegas production.

Monday 5 October 2020 12:30 (20 minutes)

Presenters: BHATTACHARYA, Deb Sankar (Julius Max. Universitaet Wuerzburg (DE)); SWIRSKI, Thorben (Julius Max. Universitaet Wuerzburg (DE))

Session Classification: RD51CM - Working Group 4

Contribution ID: 67

Type: **not specified**

Study of the influence of surface condition of anode and mesh shape of Micromegas detectors on their performance

Thursday 8 October 2020 10:40 (20 minutes)

Presenter: BOSSIS, Théo (CEA Saclay - Irfu)

Session Classification: RD51CM - Working Group 2

Contribution ID: **68**

Type: **not specified**

Improving the position response of MPGDs

Thursday 8 October 2020 11:00 (20 minutes)

Presenter: SCHARENBERG, Lucian (CERN, University of Bonn (DE))

Session Classification: RD51CM - Working Group 2

Contribution ID: **69**

Type: **not specified**

Neutral Bremsstrahlung in Xe: Theory and Simulations

Thursday 8 October 2020 10:20 (20 minutes)

Presenter: AMEDO MARTINEZ, Pablo (Universidade de Santiago de Compostela (ES))

Session Classification: RD51CM - Working Group 2

Contribution ID: 70

Type: **not specified**

Common mode and ion tail analysis of the GEM upgrade of the ALICE TPC

Thursday 8 October 2020 12:00 (20 minutes)

Presenters: IVANOV, Marian (GSI - Helmholtzzentrum für Schwerionenforschung GmbH (DE)); ARSLANDOK, Mesut (Yale University (US)); CHATZIDAKI, Panagiota (Ruprecht Karls Universität Heidelberg (DE))

Session Classification: RD51CM - Working Group 2

Contribution ID: 71

Type: **not specified**

Status of the GE11 Project

Tuesday 6 October 2020 12:10 (25 minutes)

Presenter: REGNERY, Brendan (University of California Davis (US))

Session Classification: RD51CM - Working Group 1

Contribution ID: 72

Type: **not specified**

Experimental evidence of neutral bremsstrahlung in Xe

Thursday 8 October 2020 10:00 (20 minutes)

Presenter: Mr HENRIQUES, Carlos (University of Coimbra)

Session Classification: RD51CM - Working Group 2

Contribution ID: 73

Type: **not specified**

Welcome to the RD-51 Collaboration Meeting

Monday 5 October 2020 10:00 (5 minutes)

Presenters: ROPELEWSKI, Leszek (CERN); DALLA TORRE, Silvia (Universita e INFN Trieste (IT))

Session Classification: RD51CM - Working Group 4

Contribution ID: 74

Type: **not specified**

A new technique to establish the uniformity in induction gaps of GEMs

Wednesday 7 October 2020 10:00 (20 minutes)

Presenters: GOLA, Mohit (University of Delhi (IN)); GOLA, Mohit (University of Delhi (IN))

Session Classification: RD51CM - Working Group 5

Contribution ID: 75

Type: **not specified**

Assembly of a full SRS Eurocrate for 8 FECs and VMM readout

Wednesday 7 October 2020 10:20 (20 minutes)

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

Session Classification: RD51CM - Working Group 5

Contribution ID: 76

Type: **not specified**

Firmware development for the Scalable Readout System (SRS) with VMM3a

Wednesday 7 October 2020 10:40 (20 minutes)

Presenter: SCHWÄBIG, Patrick (University of Bonn)

Session Classification: RD51CM - Working Group 5

Contribution ID: 77

Type: **not specified**

VMM3 Hybrid quality test sytem - Test results of 24 hybrids

Wednesday 7 October 2020 11:20 (20 minutes)

Presenter: JAEKEL, Finn (University of Bonn)

Session Classification: RD51CM - Working Group 5

Contribution ID: 78

Type: **not specified**

Organization communication

Presenter: DALLA TORRE, Silvia (Universita e INFN Trieste (IT))

Session Classification: RD51CM - Working Group 6

Contribution ID: 79

Type: **not specified**

VTC - a system for functional testing and validation of VMM3a hybrids

Wednesday 7 October 2020 11:40 (20 minutes)

Presenter: HRACEK, Marek (Czech Technical University in Prague (CZ))

Session Classification: RD51CM - Working Group 5

Contribution ID: **80**

Type: **not specified**

Status report of the WG5.1 subgroup

Wednesday 7 October 2020 12:00 (15 minutes)

Presenter: SCHARENBERG, Lucian (CERN, University of Bonn (DE))

Session Classification: RD51CM - Working Group 5

Contribution ID: **81**

Type: **not specified**

SAMPA SRS integration status report

Wednesday 7 October 2020 12:15 (20 minutes)

Presenter: MARTINS, Tarciso Alvim (Universidade de Sao Paulo (BR))

Session Classification: RD51CM - Working Group 5

Contribution ID: **82**

Type: **not specified**

CEPC TPC status and requirements from IHEP

Tuesday 6 October 2020 12:35 (25 minutes)

Presenters: QI, Huirong (IHEP,CAS); Dr QI, Huirong (Institute of High Energy Physics, CAS); QI, Huirong (IHEP)

Session Classification: RD51CM - Working Group 1