

# **PM2018 - 14th Pisa Meeting on Advanced Detectors**

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La Biodola - Isola d'Elba (Italy)

## **Book of Abstracts**



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**Corresponding Author:** [matteo.degerone@ge.infn.it](mailto:matteo.degerone@ge.infn.it)

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## **6 Linearity and Saturation Properties of Hamamatsu R5912-MOD Photomultiplier Tube for the ICARUS T600 light detection system**

**Corresponding Author:** [maura.spanu@cern.ch](mailto:maura.spanu@cern.ch)

**Cryogenic / Superconductive Devices / 50**

## **77K superconducting electronics based on coherent operation of SQUID arrays for advanced detection in physics 15'**

**Corresponding Author:** [b.chesca@lboro.ac.uk](mailto:b.chesca@lboro.ac.uk)

**Application to Life Sciences and Other Challenges - Poster Session / 264**

## **A C-14 beam monitor using silicon solid state sensor for cultural heritage**

**Corresponding Author:** [francesco.barile@ba.infn.it](mailto:francesco.barile@ba.infn.it)

**Calorimetry - Poster Session / 207**

## **A Compton Spectrometer to monitor the ELI-NP beam energy**

**Corresponding Author:** [rita.borgheresi@fi.infn.it](mailto:rita.borgheresi@fi.infn.it)

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## **A Cylindrical GEM Inner Tracker for the BESIII experiment**

**Corresponding Author:** [cibinetto@fe.infn.it](mailto:cibinetto@fe.infn.it)

**Gas Detectors - Poster Session / 302**

**A Fast Timing Micro-Pattern Gaseous Detector for Future Accelerators and TOF-PET**

Corresponding Author: [raffaella.radogna@ba.infn.it](mailto:raffaella.radogna@ba.infn.it)

**Photo Detectors and PID - Poster Session / 148**

**A SiPM based cryogenic Photo Detector Module for dark matter searches OK**

Corresponding Author: [andrea.mandarano@gssi.infn.it](mailto:andrea.mandarano@gssi.infn.it)

**Detector Techniques for Cosmology, Astroparticle and Fundamental Physics - Poster Session / 99**

**A compact Time-Of-Flight detector for radiation measurements in a space habitat: the LIDAL detector**

Corresponding Author: [cristina.morone@roma2.infn.it](mailto:cristina.morone@roma2.infn.it)

**Detector Techniques for Cosmology, Astroparticle and Fundamental Physics / 4**

**A compact low threshold gamma-ray detector composed of LaBr3 and SiPMs for GECAM**

Corresponding Author: [sunxl@ihep.ac.cn](mailto:sunxl@ihep.ac.cn)

**Gas Detectors - Poster Session / 304**

**A double-mesh gaseous structure developed with a thermal bonding technique for single electron detection**

Corresponding Author: [liujianb@ustc.edu.cn](mailto:liujianb@ustc.edu.cn)

**Solid State Detectors - Poster Session / 187**

**A fast and quasi-non invasive muon beam monitoring detector working at the highest beam intensity in the world**

Corresponding Author: [malte.hildebrandt@psi.ch](mailto:malte.hildebrandt@psi.ch)

**Solid State Detectors - Poster Session / 178**

## **A feasibility test run for the MUonE project**

**Corresponding Author:** gballerini@studenti.uninsubria.it

**Cryogenic / Supeconductive Devices - Poster Session / 225**

## **A frequency domain multiplexing system to readout the TES bolometers on the LSPE/SWIPE experiment**

**Corresponding Author:** davide.vaccaro@pi.infn.it

**Calorimetry / 38**

## **A gamma calorimeter for the monitoring of the ELI-NP beam**

**Corresponding Author:** michele.veltri@uniurb.it

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## **A gamma calorimeter for the monitoring of the ELI-NP beam**

**Corresponding Author:** michele.veltri@uniurb.it

**Photo Detectors and PID - Poster Session / 150**

## **A large silicon photomultiplier for the readout of barium fluoride scintillation light**

**Corresponding Author:** hitlin@caltech.edu

**Front, Trigger, DAQ and Data Management - Poster session / 343**

## **A low cost, high speed, multichannel Analog to Digital converter board**

**Corresponding Author:** paolo.musico@ge.infn.it

**Photo Detectors and PID - Poster Session / 128**

## **A low energy x-ray Compton polarimeter prototype**

**Corresponding Author:** u.spillmann@gsi.de

**Application to Life Sciences and Other Challenges / 66**

## **A new compact tracker for ultrafast secondary neutrons produced in light ions therapy**

**Corresponding Author:** eliana.gioscio@lnf.infn.it

**Front, Trigger, DAQ and Data Management - Poster session / 362**

## **A new readout electronics for the LHCb Muon Detector Upgrade**

**Corresponding Author:** davide.brundu@ca.infn.it

**Gas Detectors - Poster Session / 292**

## **A new type of RPC with very low resistive plates**

**Corresponding Author:** shreyaroy2509@gmail.com

**Photo Detectors and PID - Poster Session / 141**

## **A novel bowl-shape microchannel plate with high electron collection efficiency and good time resolution**

**Corresponding Author:** chenping@opt.cn

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## **A novel neutron detector for $^3\text{He}$ replacement in environmental applications**

**Corresponding Author:** luca.stevanato@pd.infn.it

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## **A pixelated Faraday cup for proton beam diagnostics**

**Corresponding Author:** giovanni.signorelli@pi.infn.it

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### **AM07: Characterization of the Novel Associative Memory Chip Prototype Designed in 28 nm CMOS Technology for High Energy Physics and Interdisciplinary Applications**

**Corresponding Author:** francesco.crescioli@lpnhe.in2p3.fr

**Solid State Detectors - Poster Session / 169**

### **ATLAS ITk Strip Detector for High-Luminosity LHC**

**Corresponding Author:** edoardo.rossi@desy.de

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### **ATLAS LAr Calorimeter Performance in LHC Run-2**

**Corresponding Author:** stefanie.morgenstern@cern.ch

**Calorimetry - Poster Session / 202**

### **ATLAS Tile Calorimeter Upgrades for HL-LHC**

**Corresponding Author:** stylianos.angelidakis@cern.ch

**Calorimetry - Poster Session / 203**

### **ATLAS TileCal LVPS Upgrade Hardware and Testing**

**Corresponding Author:** michael.hibbard@mavs.uta.edu

**Solid State Detectors - Poster Session / 153**

### **ATLAS “”Baby-DEMO”**

**Corresponding Author:** lukasz.zwalinski@cern.ch

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## **Acknowledgements**

**Corresponding Author:** giovanni.batignani@pi.infn.it

**Solid State Detectors - Poster Session / 154**

## **Advanced Through Silicon Vias for Hybrid Pixel Detector Modules**

**Corresponding Author:** huegging@physik.uni-bonn.de

**Solid State Detectors - Poster Session / 192**

## **Advanced optical quality assurance of the silicon microstrip sensors of the CBM STS detector**

**Corresponding Author:** evgeny.lavrik@uni-tuebingen.de

**Solid State Detectors - Poster Session / 152**

## **Advancements and plans for LHC upgrade detector thermal management with CO<sub>2</sub> evaporative cooling**

**Corresponding Author:** paola.tropea@cern.ch

**Solid State Detectors - Poster Session / 167**

## **Advances on TCAD numerical modeling of radiation damage effects in silicon detectors for HL-LHC operations**

**Corresponding Author:** daniele.passeri@pg.infn.it

**Gas Detectors - Poster Session / 308**

## **Aging Phenomena and Discharge Probability Studies of the triple-GEM detectors for future upgrades of the CMS muon high rate region at the HL-LHC**

**Corresponding Author:** francesco.fallavollita@pv.infn.it



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## **An innovative radiation hardened Content-Addressable Memory**

**Corresponding Author:** seyedruhollah.shojaii@mi.infn.it

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## **An observation-simulation and analysis framework for the Imaging X-ray Polarimetry Explorer (IXPE)**

**Corresponding Author:** melissa.pesce.rollins@pi.infn.it

**Photo Detectors and PID - Poster Session / 127**

## **Analysis of the Performance of Photon Detection Methods Using Silicon Photomultiplier in the Application with High Throughput Requirements**

**Corresponding Author:** baszczyk@agh.edu.pl

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## **Another step in photodetection innovation: the 1-inch VSiPMT prototype**

**Corresponding Author:** felicia.barbato@na.infn.it

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## **Application of Silicon Photomultiplier Model to the Design of Front-End Electronics**

**Corresponding Author:** baszczyk@agh.edu.pl

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## **Attract**

**Corresponding Author:** sergio.bertolucci@bo.infn.it

**Calorimetry - Poster Session / 204**

## **Beam Tests on the ATLAS Tile Calorimeter Demonstrator Module**

**Corresponding Author:** eduardo.valdes@cern.ch

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## **C++ implementation of Bethe-Heitler, 5D, Polarized, $\gamma \rightarrow e^+e^-$ Pair Conversion Event Generator**

**Corresponding Author:** igor.semeniouk@llr.in2p3.fr

**Calorimetry - Poster Session / 220**

## **CALPRO, an unconventional calorimetry approach**

**Corresponding Author:** michele.iacovacci@na.infn.it

**Round Table - Evolution of Research Infrastructures for Frontier Physics and the Need of Cutting-Edge Technologies / 53**

## **CERN**

**Corresponding Author:** lucio.rossi@cern.ch

**Detector Techniques for Cosmology, Astroparticle and Fundamental Physics - Poster Session / 94**

## **CHEC - a Compact High-Energy Camera for the Cherenkov Telescope Array**

**Corresponding Author:** justus.zorn@mpi-hd.mpg.de

**Application to Life Sciences and Other Challenges - Poster Session / 261**

## **CHNET\_TANDEM experiment: Use of Negative Muons at Port4 of the RIKEN-RAL for elemental characterization of “Nuragic votive ship” samples**

**Corresponding Author:** massimiliano.clemenza@mib.infn.it

**Calorimetry - Poster Session / 212**

## **CMS ECAL Calibration & Alignment**

**Corresponding Author:** tanvi.wamorkar@cern.ch

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## **CUORE: the first bolometric experiment at the ton scale for rare decay searches**

**Corresponding Author:** antonio.branca@pd.infn.it

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## **CUPID-0, challenges and achievements in the struggle of 0-background double-beta decay experiments**

**Corresponding Author:** ioan.dafinei@roma1.infn.it

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## **Cadmium Manganese Telluride versus Cadmium Zinc Telluride for X-ray detectors**

**Corresponding Author:** aruzin@eng.tau.ac.il

**Calorimetry - Poster Session / 205**

## **Calibration of the calorimeter signal waveform in the SND detector**

**Corresponding Author:** i.k.surin@inp.nsk.su

**Photo Detectors and PID / 14**

## **Calibration, Commissioning, and Operation of the Time Of Propagation PID Detector at the Belle II Experiment**

**Corresponding Author:** gaz@hepl.phys.nagoya-u.ac.jp

**Application to Life Sciences and Other Challenges / 63**

## **Calorimeter prototyping for the iMPACT project pCT scanner**

**Corresponding Author:** nicola.pozzobon@pd.infn.it

**Solid State Detectors - Poster Session / 159**

## **Characterisation of the radiation hardness of HV-CMOS sensors using the Transient Current Technique**

**Corresponding Author:** claudia.merlassino@cern.ch

**Solid State Detectors - Poster Session / 170**

## **Characterization Results of HVCMOS Sensors for Mu3e and ATLAS**

**Corresponding Author:** felix.ehrler@kit.edu

**Front, Trigger, DAQ and Data Management - Poster session / 359**

## **Characterization and first field results of a new 64ch custom front-end ASIC for GEM readout**

**Corresponding Author:** alekseev@to.infn.it

**Photo Detectors and PID - Poster Session / 118**

## **Characterization of FBK NUV-HD SiPMs for the pSCT camera proposed for the CTA experiment**

**Corresponding Author:** serena.loporchio@ba.infn.it

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## **Characterization of SiPM arrays with common bias and common readout for applications in liquid argon**

**Corresponding Author:** marta.babicz@cern.ch

**Photo Detectors and PID - Poster Session / 136**

## **Characterization of VUV-sensitive SiPMs for nEXO**

**Corresponding Author:** michael.wagenpfeil@fau.de

**Solid State Detectors - Poster Session / 166**

## **Characterization of a depleted monolithic pixel sensors in 150 nm CMOS technology for the ATLAS Inner Tracker upgrade**

**Corresponding Author:** iguaz@cea.fr

**Detector Techniques for Cosmology, Astroparticle and Fundamental Physics - Poster Session / 97**

## **Characterization of a prototype silicon drift detector system for the TRISTAN project**

**Corresponding Author:** tbrunst@mpp.mpg.de

**Solid State Detectors - Poster Session / 193**

## **Charge sharing of single photons in finely segmented pixel detectors**

**Corresponding Author:** simone.monzani@mi.infn.it

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## **Charged particle timing at sub-25 picosecond precision: the PICOSEC detection concept**

**Corresponding Author:** iguaz@cea.fr

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## **Cold Electronics system for ProtoDUNE-SP LAr-TPC**

**Corresponding Author:** maura.spanu@cern.ch

**Gas Detectors - Poster Session / 270**

## **Combined Optical and Electronic Readout for Event Reconstruction in a GEM-based TPC**

**Corresponding Author:** [florian.brunbauer@cern.ch](mailto:florian.brunbauer@cern.ch)

**Solid State Detectors - Poster Session / 175**

## **Combined TCAD and Geant4 simulations of diamond detectors for timing applications**

**Corresponding Author:** [daniele.passeri@pg.infn.it](mailto:daniele.passeri@pg.infn.it)

**Gas Detectors - Poster Session / 286**

## **Commissioning and performance of the GE1/1 slice test detectors**

**Corresponding Author:** [ilaria.vai@pv.infn.it](mailto:ilaria.vai@pv.infn.it)

**Cryogenic / Supeconductive Devices - Poster Session / 230**

## **Commissioning of a Si(Li) Compton polarimeter**

**Corresponding Author:** [marco.vockert@uni-jena.de](mailto:marco.vockert@uni-jena.de)

**Calorimetry - Poster Session / 213**

## **Compact Calorimeters with Oriented Crystals**

**Corresponding Author:** [bandiera@fe.infn.it](mailto:bandiera@fe.infn.it)

**Gas Detectors - Poster Session / 311**

## **Comparative study of triple and quadruple GEM detectors and effect of drift field on the electron transparency**

**Corresponding Author:** [rajendra.nath.patra@cern.ch](mailto:rajendra.nath.patra@cern.ch)

**Front, Trigger, DAQ and Data Management - Poster session / 316**

## **Computing Infrastructure at the CERN Neutrino Platform prototypes experiments**

**Corresponding Author:** nectarios.benekos@cern.ch

**Cryogenic / Supeconductive Devices - Poster Session / 224**

## **Cryogenic Light Detectors for Rare Event Searches**

**Corresponding Author:** elizabeth.mondragon@tum.de

**Cryogenic / Supeconductive Devices - Poster Session / 223**

## **Cryogenic electronics for photosensors operating in Liquid Xenon**

**Corresponding Author:** adriano.digiovanni@nyu.edu

**Cryogenic / Supeconductive Devices / 48**

## **Cryogenic light detectors for background suppression: the CALDER project.**

**Corresponding Author:** nicola.casali@roma1.infn.it

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## **DECAL: Digital Calorimetry using DMAPs sensors**

**Corresponding Author:** worm@cern.ch

**Solid State Detectors - Poster Session / 186**

## **DEPFET pixel detector in the Belle II experiment**

**Corresponding Author:** wessel@physik.uni-bonn.de

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## **Darkside-20k and the future Liquid Argon Dark Matter program**

**Corresponding Author:** giuliana.fiorillo@na.infn.it

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## **Data acquisition system for the EDET DH80k instrument**

Corresponding Author: polovykh@gmail.com

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## **Deep learning to study the noise in gravitational wave interferometers**

Corresponding Author: massimiliano.razzano@pi.infn.it

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## **Design and Construction of Integrated Small Diameter Drift Tube Chambers and Thin-Gap Resistive Plate Chambers for the Phase-I Upgrade of the ATLAS Muon Spectrometer**

Corresponding Author: kroha@mpp.mpg.de

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## **Design and Preliminary Characterization Results of BASIC64, a New Mixed-Signal ASIC for SiPM Detectors**

Corresponding Author: pietroantoniopaolo.calo@poliba.it

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## **Design and performance evaluation of front-end electronics for COMET straw tracker**

Corresponding Author: kazuueno@post.kek.jp

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## **Design and performance studies of the calorimeter system for a FCC-hh experiment**

Corresponding Author: clement.helsens@cern.ch



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## **Design and test of the Mu2e undoped CsI + SiPM crystal calorimeter**

Corresponding Author: [raffaella.donghia@gmail.com](mailto:raffaella.donghia@gmail.com)

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## **Design and test of the calibration system of the MEGII Pixelated timing Counter**

Corresponding Author: [paolo.cattaneo@pv.infn.it](mailto:paolo.cattaneo@pv.infn.it)

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## **Design of a SiPM-based cluster for the Large Size Telescope camera of CTA**

Corresponding Author: [manuela.mallamaci@pd.infn.it](mailto:manuela.mallamaci@pd.infn.it)

Gas Detectors - Poster Session / 300

## **Design of a gaseous beam monitor device using a GPU based simulation code**

Corresponding Author: [barlerin@lpccaen.in2p3.fr](mailto:barlerin@lpccaen.in2p3.fr)

Front, Trigger, DAQ and Data Management - Poster session / 337

## **Design of a high radiation-hard driver for Mach-Zehnder Modulators based high-speed links for hadron collider applications**

Corresponding Author: [fabrizio.palla@pi.infn.it](mailto:fabrizio.palla@pi.infn.it)

Front, Trigger, DAQ and Data Management - Poster session / 351

## **Design of the ATLAS phase-II hardware based tracking processor**

Corresponding Author: [riccardo.poggi@cern.ch](mailto:riccardo.poggi@cern.ch)

**Gas Detectors - Poster Session / 281**

## **Design of the FCC-hh Muon Detector and Trigger System**

**Corresponding Author:** kortner@mpp.mpg.de

**Photo Detectors and PID - Poster Session / 140**

## **Design of the microchannel plate photomultiplier tube for applications in strong magnetic fields**

**Corresponding Author:** chenping@opt.cn

**Photo Detectors and PID - Poster Session / 124**

## **Detection of Vacuum Ultra-Violet light by means of SiPMs with and without a wave-length shifter coating for High Energy Physics experiments**

**Corresponding Author:** massimo.rossella@pv.infn.it

**Calorimetry - Poster Session / 218**

## **Detector performance studies for the CMS High Granularity Calorimeter**

**Corresponding Author:** manfred.valentan@oeaw.ac.at

**Detector Techniques for Cosmology, Astroparticle and Fundamental Physics - Poster Session / 111**

## **Detector setup of the VIP2 Underground Experiment at LNGS**

**Corresponding Author:** johann.marton@oeaw.ac.at

**Solid State Detectors - Poster Session / 183**

## **Development and commissioning of the 30 ps time resolution MEGII Pixelated Time detector**

**Corresponding Author:** paolo.cattaneo@pv.infn.it

**Solid State Detectors - Poster Session / 179**

## **Development of Graphene-Based Ionizing Radiation Sensors**

**Corresponding Author:** julius.scherzinger@pi.infn.it

**Solid State Detectors / 31**

## **Development of Ultra Fast Silicon Detector for 4D tracking**

**Corresponding Author:** carnesec@bo.infn.it

**Front, Trigger, DAQ and Data Management - Poster session / 360**

## **Development of a high voltage power supply for detectors using photo-diode**

**Corresponding Author:** sr.phys@gmail.com

**Front, Trigger, DAQ and Data Management - Poster session / 330**

## **Development of a highly selective muon trigger exploiting the high spatial resolution of monitored drift-tube chambers for the ATLAS experiment at the HL-LHC**

**Corresponding Author:** kortner@mpp.mpg.de

**Solid State Detectors - Poster Session / 174**

## **Development of an automated and programmable characterization system for silicon multi-strip sensors**

**Corresponding Author:** geetikajain.hep@gmail.com

**Application to Life Sciences and Other Challenges - Poster Session / 253**

## **Development of an ultra thin monitor for charged particle beams**

**Corresponding Author:** bruno.boyer@llr.in2p3.fr

**Gas Detectors - Poster Session / 283**

## **Development of gaseous particle detectors based on semi-conductive plate electrodes**

Corresponding Author: cardarelli@fe.infn.it

Application to Life Sciences and Other Challenges - Poster Session / 239

## **Development of high-resolution Compton camera for prompt gamma-ray imaging during proton therapy**

Corresponding Author: mosaku39@fuji.waseda.jp

Application to Life Sciences and Other Challenges - Poster Session / 245

## **Development of innovative PET module with Depth of Interaction and Timing capabilities**

Corresponding Author: gianluca.stringhini@cern.ch

Application to Life Sciences and Other Challenges - Poster Session / 240

## **Development of new compact neutron camera for safe proton therapy**

Corresponding Author: leo.tagawa@toki.waseda.jp

Front, Trigger, DAQ and Data Management / 81

## **Development of the ATLAS Liquid Argon Calorimeter Readout Electronics for the HL-LHC**

Corresponding Author: christopher.aneli@gmail.com

Solid State Detectors - Poster Session / 180

## **Development of the proton beam monitor based on the thin diamond crystal for the COMET Experiment**

Corresponding Author: yfujii@post.kek.jp

Solid State Detectors - Poster Session / 157

## **Development of the radiation hard high-speed monolithic “MALTA” CMOS sensor for the ATLAS ITK outer pixel layer**

Corresponding Author: heinz.pernegger@cern.ch

Photo Detectors and PID / 17

## **Direct Measurement of Optical Cross-Talk in SiPMs Using Light Emission Microscopy**

Corresponding Author: dstrom@fnal.gov

Cryogenic / Supeconductive Devices / 44

## **Direct Search for WIMP Dark Matter particles with the LUX-ZEPLIN (LZ) detector**

Corresponding Author: kpushkin@bama.ua.edu

Gas Detectors / 76

## **Dual-Stage Gas Proportional Scintillation Counter - New Developments**

Corresponding Author: andre.f.cortez@gmail.com

Detector Techniques for Cosmology, Astroparticle and Fundamental Physics - Poster Session / 105

## **EUSO-SPB1: in-flight performance**

Corresponding Author: giuseppe.osteria@na.infn.it

Focus on / 51

## **Einstein Telescope**

Corresponding Author: giovanni.losurdo@pi.infn.it

Application to Life Sciences and Other Challenges - Poster Session / 243

## **Evaluation of LFS continuous scintillation crystals for PET 1**

**Corresponding Author:** arosgar@ific.uv.es

**Application to Life Sciences and Other Challenges - Poster Session / 252**

### **Evaluation of a ZnS:6LiF based scintillation neutron detector at high counting rates**

**Corresponding Author:** malte.hildebrandt@psi.ch

**Photo Detectors and PID - Poster Session / 134**

### **Evaluation of a hybrid pixel detector prototype for time resolved experiments at the ODE beamline of the SOLEIL Synchrotron**

**Corresponding Author:** diana.bachiller@synchrotron-soleil.fr

**Application to Life Sciences and Other Challenges / 62**

### **Evaluation of a novel photon-counting CT system using 16-ch MPPC array for multicolor 3D imaging**

**Corresponding Author:** ffmtwww81345@akane.waseda.jp

**Application to Life Sciences and Other Challenges - Poster Session / 248**

### **Evaluation of double-sided silicon microstrip sensors as tracker components for FOOT experiment**

**Corresponding Author:** gianluigi.silvestre@pg.infn.it

**Solid State Detectors - Poster Session / 164**

### **Event Upsets in the ATLAS IBL Frontend ASICs**

**Corresponding Author:** alexandre.rozanov@cern.ch

**Gas Detectors - Poster Session / 274**

### **Experimental ion mobility measurements for the LCTPC Collaboration**

**Corresponding Author:** andre.cortez@coimbra.lip.pt

**Cryogenic / Supeconductive Devices - Poster Session / 233**

## **Experimental study of the propagation of scintillation light in liquid argon**

**Corresponding Author:** stefania.bordoni@cern.ch

**Front, Trigger, DAQ and Data Management - Poster session / 319**

## **FATALIC: a fully integrated electronics for the ATLAS tile calorimeter at the HL-LHC**

**Corresponding Author:** romain.madar@cern.ch

**Welcome Addresses & Opening Talk / 11**

## **FDFP welcome address & Opening Talk**

**Corresponding Author:** arnaldo.stefanini@pi.infn.it

**Round Table - Evolution of Research Infrastructures for Frontier Physics and the Need of Cutting-Edge Technologies / 57**

## **FERMILAB**

**Photo Detectors and PID - Poster Session / 143**

## **Fast Neutron detectors with silicon photomultiplier readouts**

**Photo Detectors and PID - Poster Session / 125**

## **First Experience with the Belle II Aerogel RICH Detector**

**Corresponding Author:** manca.mrvar@ijs.si

**Solid State Detectors - Poster Session / 188**

## **First experience with the Belle II radiation monitoring system based on s-CVD diamonds**

**Corresponding Author:** lorenzo.vitale@ts.infn.it

**Photo Detectors and PID / 20**

## **First results of measurements of spectrum and angular distribution of transition radiation using a silicon pixel sensor on a TimePix3 chip**

**Corresponding Author:** enrico.junior.schioppa@cern.ch

**Front, Trigger, DAQ and Data Management - Poster session / 345**

## **First test results of the CHIPIX65 asynchronous front-end connected to a 3D sensor**

**Corresponding Author:** luigi.gaioni@pv.infn.it

**Front, Trigger, DAQ and Data Management - Poster session / 320**

## **First-Level Muon Track Trigger for Future Hadron Collider Experiments**

**Corresponding Author:** nowak@mpp.mpg.de

**Calorimetry - Poster Session / 206**

## **Forward hadron calorimeter at MPD/NICA**

**Corresponding Author:** timoshenkonas@gmail.com

**Round Table - Evolution of Research Infrastructures for Frontier Physics and the Need of Cutting-Edge Technologies / 58**

## **Fraunhofer**

**Corresponding Author:** thomas.fritsch@izm.fraunhofer.de

**Front, Trigger, DAQ and Data Management - Poster session / 313**

## **From the Phase-0 DAQ upgrade of entire ATLAS Pixel Detector towards the Phase-2 electronics upgrade**

**Corresponding Author:** alessandro.gabrielli@bo.infn.it



Front, Trigger, DAQ and Data Management - Poster session / 353

## **Front-End Electronics of the Electromagnetic Barrel-Calorimeter for the PANDA Target Spectrometer\***

Corresponding Author: christopher.l.hahn@physik.uni-giessen.de

Front, Trigger, DAQ and Data Management - Poster session / 342

## **Front-end electronic system for large area photomultipliers read-out**

Corresponding Author: paolo.musico@ge.infn.it

Application to Life Sciences and Other Challenges - Poster Session / 257

## **Gamma beam collimation system and profile imager for ELI-NP**

Corresponding Author: cardarelli@fe.infn.it

Gas Detectors / 75

## **HARPO, a gas TPC active target for high-performance gamma-ray astronomy; demonstration of the polarimetry of MeV gamma-rays converting to e+e- pair**

Corresponding Author: denis.bernard@in2p3.fr

Detector Techniques for Cosmology, Astroparticle and Fundamental Physics / 3

## **HERMES: An ultra-wide band X and gamma-ray transient monitor on board a nano-satellite constellation**

Corresponding Author: fuschino@iasfbo.inaf.it

Gas Detectors - Poster Session / 297

## **High Voltage Stability and Cleaning of 2m<sup>2</sup> Resistive Strip Microegas Detectors**

Corresponding Author: paolo.massarotti@na.infn.it

**Cryogenic / Supeconductive Devices - Poster Session / 236**

## **High energy resolution thermal microcalorimeters for the HOLMES experiment**

**Corresponding Author:** marco.faverzani@mib.infn.it

**Front, Trigger, DAQ and Data Management - Poster session / 344**

## **High performance DAQ for muon spectroscopy experiments**

**Corresponding Author:** m.soldani1@studenti.uninsubria.it

**Detector Techniques for Cosmology, Astroparticle and Fundamental Physics - Poster Session / 110**

## **High precision mapping of single-pixel Silicon Drift Detector for application in astrophysics and advanced light source**

**Corresponding Author:** cirrincione.daniela@gmail.com

**Gas Detectors - Poster Session / 277**

## **High resolution TPC based on optically readout GEM**

**Corresponding Author:** davide.pinci@roma1.infn.it

**Detector Techniques for Cosmology, Astroparticle and Fundamental Physics / 7**

## **High-energy $e^-/e^+$ spectrometer via coherent interaction in a bent crystal**

**Corresponding Author:** bagli@fe.infn.it

**Round Table - Evolution of Research Infrastructures for Frontier Physics and the Need of Cutting-Edge Technologies / 59**

## **IBM**

**Corresponding Author:** fabrizio.renzi@roma1.infn.it

**Round Table - Evolution of Research Infrastructures for Frontier Physics and the Need of Cutting-Edge Technologies / 52****INFN****Corresponding Author:** fernando.ferroni@roma1.infn.it**Calorimetry - Poster Session / 221****Identification of Double-Beta Decay Events in a Liquid Scintillator Detector****Corresponding Author:** elagin@hep.uchicago.edu**Gas Detectors - Poster Session / 278****Impact of Single-Mask Hole Asymmetry on the properties of GEM Detectors****Corresponding Author:** aashaq.shah@cern.ch**Gas Detectors - Poster Session / 305****Implementation of the code for the simulation of the response of a triple-GEM tracker and its comparison to the experimental data****Corresponding Author:** lia.lavezzi@to.infn.it**Gas Detectors - Poster Session / 310****Improving spatial and PID performance of the high transparency Drift Chamber by using the Cluster Counting and Timing techniques****Corresponding Author:** gianluigi.chiarelo@roma1.infn.it**Application to Life Sciences and Other Challenges - Poster Session / 247****In-room characterization, using an anthropomorphic phantom, of a novel detector exploiting secondary charged particles emission for on-line dose monitoring in light ions PT treatments****Corresponding Author:** eliana.gioscio@lnf.infn.it

Application to Life Sciences and Other Challenges - Poster Session / 268

### **Innovation in online hadrontherapy monitoring: an in-beam PET and prompt-gamma-timing combined device.**

Corresponding Author: veronica.ferrero@to.infn.it

Application to Life Sciences and Other Challenges - Poster Session / 267

### **Innovative 3D sensitive CdZnTe solid state detector for dose monitoring in Boron Neutron Capture Therapy (BNCT)**

Corresponding Author: nicoletta.protti@pv.infn.it

Application to Life Sciences and Other Challenges - Poster Session / 241

### **Intense thermal neutron fields based on a medical Linac -The e\_LIBANS project**

Corresponding Author: marco.costa@to.infn.it

Calorimetry - Poster Session / 219

### **JUNO Stero-Calorimetry System JUNO**

Corresponding Author: marco.grassi@apc.in2p3.fr

Cryogenic / Supeconductive Devices / 49

### **Josephson radiation sensors via temperature-to-phase conversion**

Corresponding Author: paoluccifederico@libero.it

Application to Life Sciences and Other Challenges / 61

### **KALYPSO: linear array detector for high-repetition rate and real-time beam diagnostics**

Corresponding Author: lorenzo.rota@kit.edu

**Round Table - Evolution of Research Infrastructures for Frontier Physics and the Need of Cutting-Edge Technologies / 55****KEK**

Corresponding Author: junji.haba@kek.jp

**Detector Techniques for Cosmology, Astroparticle and Fundamental Physics / 9****KM3NeT : next-generation neutrino telescope under the Mediterranean Sea**

Corresponding Author: remy.lebreton@apc.in2p3.fr

**Front, Trigger, DAQ and Data Management - Poster session / 315****Kalman meets Molière : Optimal measurement of charged particle momentum from multiple scattering by Bayesian analysis of filtering innovations**

Corresponding Author: denis.bernard@in2p3.fr

**Photo Detectors and PID / 19****Large Area Picosecond Photodetector (LAPPD) - Pilot Production and Development Status**

Corresponding Author: mjm@incomusa.com

**Front, Trigger, DAQ and Data Management - Poster session / 350****Level-1 track finding with an all-FPGA system at CMS for the HL-LHC**

Corresponding Author: luis.ardila@kit.edu

**Solid State Detectors - Poster Session / 160****Low Gain Avalanche Diodes for Precision Timing in the CMS Endcap**

Corresponding Author: marco.costa@to.infn.it

**Front, Trigger, DAQ and Data Management - Poster session / 341**

## **Low Latency serial communication for MEG II Trigger system**

**Corresponding Author:** marco.francesconi@pi.infn.it

**Application to Life Sciences and Other Challenges - Poster Session / 256**

## **Low statistics activity reconstruction methods with the DoPET system**

**Corresponding Author:** valeria.rosso@pi.infn.it

**Solid State Detectors - Poster Session / 176**

## **Low temperature characteristics of SIPMs after very high radiation for the SLHC CMS phase II upgrade**

**Corresponding Author:** adriaan.heering@cern.ch

**Application to Life Sciences and Other Challenges - Poster Session / 246**

## **MACACO II: second prototype of a Compton telescope**

**Corresponding Author:** arosgar@ific.uv.es

**Photo Detectors and PID - Poster Session / 144**

## **MCP-PMT production for Belle II TOP detector and further R&D**

**Corresponding Author:** kenji@hepl.phys.nagoya-u.ac.jp

**Application to Life Sciences and Other Challenges - Poster Session / 250**

## **METU Defocusing Beamline Project for the First SEE Tests in Turkey and the Test Results from the METU-DBL Preliminary Setup**

**Corresponding Author:** selenn@metu.edu.tr

**Gas Detectors / 71**

## **MPGD-based photon detectors for the upgrade of COMPASS RICH-1 and beyond**

**Corresponding Author:** [silvia.dallatorre@ts.infn.it](mailto:silvia.dallatorre@ts.infn.it)

**Gas Detectors - Poster Session / 279**

## **MRPC with high time resolution for BESIII**

**Corresponding Author:** [hengyk@ihep.ac.cn](mailto:hengyk@ihep.ac.cn)

**Application to Life Sciences and Other Challenges / 68**

## **MUON TOMOGRAPHY USING MICROMEGAS DETECTORS: FROM ARCHEOLOGY TO NUCLEAR SAFETY APPLICATIONS**

**Corresponding Author:** [hector.gomez@cea.fr](mailto:hector.gomez@cea.fr)

**Application to Life Sciences and Other Challenges - Poster Session / 238**

## **MWPC-based Muographic Observation System for remote monitoring of active volcanoes**

**Corresponding Author:** [olah.laszlo@wigner.mta.hu](mailto:olah.laszlo@wigner.mta.hu)

**Gas Detectors - Poster Session / 288**

## **Measurement and simulation of the background in the CMS muon detectors**

**Corresponding Author:** [cesare.calabria@ba.infn.it](mailto:cesare.calabria@ba.infn.it)

**Photo Detectors and PID - Poster Session / 114**

## **Measurement of the Response of Silicon Photomultipliers from Single Photon Detection to Saturation**

**Corresponding Author:** [quirin.weitzel@uni-mainz.de](mailto:quirin.weitzel@uni-mainz.de)

**Detector Techniques for Cosmology, Astroparticle and Fundamental Physics - Poster Session**  
/ 91

## **Measurement of the zenith angle distribution of the cosmic muon flux in Abu Dhabi at sea level**

Corresponding Author: gb115@nyu.edu

**Solid State Detectors - Poster Session / 163**

## **Modeling Radiation Damage to Pixel Sensors in the ATLAS Detector**

Corresponding Author: lorenzo.rossini@mi.infn.it

**Solid State Detectors - Poster Session / 189**

## **Modelization of 3D-silicon Pixels for timing applications**

Corresponding Author: angelo.loi@ca.infn.it

**Photo Detectors and PID - Poster Session / 146**

## **Modelling of picosecond timing signals from fast vacuum photo-diodes**

Corresponding Author: jsl12@le.ac.uk

**Solid State Detectors - Poster Session / 172**

## **Monolithic Sensors in LFoundry Technology: Concepts and Measurements**

Corresponding Author: rudolf.schimassek@kit.edu

**Photo Detectors and PID - Poster Session / 147**

## **Monte Carlo Modelling of Optical Crosstalk in Silicon Photomultipliers**

Corresponding Author: jodw1@le.ac.uk



Front, Trigger, DAQ and Data Management - Poster session / 332

## **Monte Carlo Response Function Simulations for the HEXITEC CdTe X-ray Detector**

Corresponding Author: kalkm1@leicester.ac.uk

Front, Trigger, DAQ and Data Management - Poster session / 349

## **Mu2e calorimeter readout electronic**

Corresponding Author: davide.caiulo@pi.infn.it

Solid State Detectors - Poster Session / 171

## **MuPix8 – Large Area Monolithic HVCMOS Pixel Detector for the Mu3e Experiment**

Corresponding Author: alena.weber@partner.kit.edu

Front, Trigger, DAQ and Data Management - Poster session / 363

## **Muon g-2 Calibration system data flow**

Corresponding Author: stefano.mastroianni@na.infn.it

Photo Detectors and PID - Poster Session / 151

## **Neutrino-Antineutrino Identification in a Liquid Scintillator Detector: towards a novel decay-at-rest-based neutrino CPV framework**

Corresponding Author: marco.grassi@apc.in2p3.fr

Photo Detectors and PID - Poster Session / 139

## **New Ultra-High cell-Density Silicon Photomultipliers with improved performance**

Corresponding Author: paternoster@fbk.eu

**Cryogenic / Supeconductive Devices - Poster Session / 237**

## **New developments in Silicon Photomultipliers for Cryogenic Applications**

**Corresponding Author:** paternoster@fbk.eu

**Solid State Detectors - Poster Session / 158**

## **New results on the FBK-INFN-LPNHE thin n-on-p pixel detectors for the upgrade of the ATLAS Inner Tracker**

**Corresponding Author:** giovanni.calderini@pi.infn.it

**Photo Detectors and PID / 18**

## **Next generation 3D digital SiPM for precise timing resolution 15'**

**Corresponding Author:** jean-francois.pratte@usherbrooke.ca

**Detector Techniques for Cosmology, Astroparticle and Fundamental Physics - Poster Session / 96**

## **Novel approaches in low energy threshold detectors for Dark Matter searches**

**Corresponding Author:** marco.guarise@unife.it

**Application to Life Sciences and Other Challenges - Poster Session / 265**

## **Nuclear Resonant Scattering for Gamma-Beam Characterization procedure at ELI-NP**

**Corresponding Author:** gigi.cappello@ct.infn.it

**Cryogenic / Supeconductive Devices - Poster Session / 235**

## **OSQAR chameleon afterglow search experiment**

**Corresponding Author:** miroslav.sulc@tul.cz

Front, Trigger, DAQ and Data Management - Poster session / 364

## **Operation of Microchannel Plate PMTs with TOFPET multichannel timing electronics**

Corresponding Author: [jsl12@le.ac.uk](mailto:jsl12@le.ac.uk)

Photo Detectors and PID - Poster Session / 130

## **Operational Evaluation of Silicon Photomultiplier Based Prototype Detector Modules Installed in the MAGIC Telescopes**

Corresponding Author: [ahahn@mpp.mpg.de](mailto:ahahn@mpp.mpg.de)

Solid State Detectors - Poster Session / 162

## **Operational Experience and Performance with the ATLAS Pixel detector at the Large Hadron Collider**

Corresponding Author: [aidan.grummer@cern.ch](mailto:aidan.grummer@cern.ch)

Front, Trigger, DAQ and Data Management - Poster session / 314

## **Optical Fiber Center Module for the KOTO Experiment**

Corresponding Author: [bogdan@edg.uchicago.edu](mailto:bogdan@edg.uchicago.edu)

Cryogenic / Superconductive Devices - Poster Session / 226

## **Optical Properties of TetraPhenylButadiene as wavelength shifter for the detection of VUV scintillation light from liquefied noble gases**

Corresponding Author: [massimo.rossella@pv.infn.it](mailto:massimo.rossella@pv.infn.it)

Photo Detectors and PID - Poster Session / 120

## **Optimal Design of Plastic Scintillator Counter with Multiple SiPM Readouts for Best Time Resolution**

Corresponding Author: [onda@icepp.s.u-tokyo.ac.jp](mailto:onda@icepp.s.u-tokyo.ac.jp)

**Photo Detectors and PID - Poster Session / 121**

## **Optimized MPGD-based photon detectors for high momentum particle identification at the Electron-Ion Collider.**

**Corresponding Author:** jinky.agarwala@ts.infn.it

**Welcome Addresses & Opening Talk / 12**

## **Organizing committee welcome**

**Corresponding Author:** marco.grassi@pi.infn.it

**Front, Trigger, DAQ and Data Management - Poster session / 322**

## **Outcome of the KLOE-2 experiment after the conclusion of the data-taking period**

**Corresponding Author:** sirghi.florincatalin@lnf.infn.it

**Solid State Detectors - Poster Session / 181**

## **Overview of the CMS beam loss monitoring system (BCML) and the performance the system in 2017**

**Corresponding Author:** vitalii.okhotnikov@cern.ch

**Photo Detectors and PID - Poster Session / 149**

## **PID techniques and performance at LHCb in Run 2**

**Corresponding Author:** mikhail.hushchyn@cern.ch

**Gas Detectors - Poster Session / 299**

## **Performance and Calibration of $2\text{m}^2$ Micromegas Detectors for the ATLAS Muon Spectrometer Upgrade**

**Corresponding Author:** giannis.maniatis@cern.ch

**Solid State Detectors - Poster Session / 168**

## **Performance and Operation of the CMS Phase 1 Pixel Detector**

**Corresponding Author:** lea.michaela.caminada@cern.ch

**Front, Trigger, DAQ and Data Management / 86**

## **Performance of CATIROC : ASIC for smart readout of large photomultiplier arrays**

**Corresponding Author:** taille@in2p3.fr

**Photo Detectors and PID - Poster Session / 132**

## **Performance of X-rays crystal detectors with SiPM array readout exposed to the RIKEN RAL low energy muon beam**

**Corresponding Author:** alessandro.menegolli@pv.infn.it

**Front, Trigger, DAQ and Data Management - Poster session / 361**

## **Performance of a high-throughput tracking processor implemented on Stratix-V FPGA**

**Corresponding Author:** federico.lazzari@pi.infn.it

**Detector Techniques for Cosmology, Astroparticle and Fundamental Physics - Poster Session / 100**

## **Performance of custom designed inverted coaxial HPGe detectors for GERDA and LEGEND**

**Corresponding Author:** tommaso.comellato@tum.de

**Gas Detectors - Poster Session / 282**

## **Performance of proportional counters filled with Xe + 5% TMA under high count rate**

**Corresponding Author:** kowalski@fis.agh.edu.pl

**Calorimetry - Poster Session / 208**

## **Performance of shashlyk calorimeter read out by SiPMs with high pixel density**

**Corresponding Author:** chirikov@nusun.jinr.ru

**Detector Techniques for Cosmology, Astroparticle and Fundamental Physics - Poster Session / 101**

## **Performance of the 3x1x1 m3 Dual Phase Liquid argon TPC**

**Corresponding Author:** caspar.maria.schloesser@cern.ch

**Gas Detectors - Poster Session / 298**

## **Performance of the CMS Muon System in LHC Run-2**

**Corresponding Author:** carlo.battilana@bo.infn.it

**Calorimetry - Poster Session / 211**

## **Performance of the CMS electromagnetic calorimeter in the LHC Run II**

**Corresponding Author:** nazar.bartosik@to.infn.it

**Front, Trigger, DAQ and Data Management - Poster session / 336**

## **Performance results of the trigger logic implemented in EUSO-SPB**

**Corresponding Author:** mario.bertaina@to.infn.it

**Gas Detectors - Poster Session / 303**

## **Performances of the Multigap Resistive Plate Chambers of the Extreme Energy Events Project**

**Corresponding Author:** marco.garbini@bo.infn.it

**Detector Techniques for Cosmology, Astroparticle and Fundamental Physics - Poster Session / 112**

## **Plastic scintillator detector array for detection of cosmic ray air shower**

**Corresponding Author:** saikat.ino@gmail.com

**Photo Detectors and PID / 16**

## **Poster Review (Experimental Applications)**

**Corresponding Author:** n.harnew1@physics.ox.ac.uk

**Photo Detectors and PID / 21**

## **Poster Review (Photodetector Technologies)**

**Corresponding Author:** fretiere@triumf.ca

**Solid State Detectors / 28**

## **Poster Review (Sensor Design and Technology)**

**Corresponding Author:** panato@fbk.eu

**Solid State Detectors / 27**

## **Poster Review (System Construction and Operation)**

**Corresponding Author:** petra.merkel@cern.ch

**Cryogenic / Superconductive Devices - Poster Session / 231**

## **Precise measurement of 3D-position of SiPMs in the liquid xenon gamma-ray detector for the MEG II experiment**

**Corresponding Author:** satoruk@icepp.s.u-tokyo.ac.jp

**Front, Trigger, DAQ and Data Management / 87**

## **Precision Clock Distribution for CMS at the HL-LHC**

**Corresponding Author:** ozgur.sahin@cern.ch

**Solid State Detectors - Poster Session / 161**

## **Precision Timing Capabilities of Silicon Pad Sensors in the CMS HGCAL**

**Corresponding Author:** florian.pitters@cern.ch

**Calorimetry - Poster Session / 199**

## **Predicting hadron-specific damage from fast hadrons in crystals for calorimetry**

**Corresponding Author:** cristina.martin.perez@cern.ch

**Detector Techniques for Cosmology, Astroparticle and Fundamental Physics - Poster Session / 92**

## **Probing the absolute neutrino mass scale with $^{163}\text{Ho}$ : the HOLMES project**

**Corresponding Author:** matteo.degerone@ge.infn.it

**Gas Detectors - Poster Session / 276**

## **Production and Characterization of GEM Foils in India**

**Corresponding Author:** aashaq.shah@cern.ch

**Gas Detectors - Poster Session / 291**

## **Production and quality control of the new chambers with GEM technology in the CMS muon system**

**Corresponding Author:** rosamaria.venditti@ba.infn.it

**Solid State Detectors - Poster Session / 191**

## **Progress Towards the Development of Cooling Demonstrator of the CBM Silicon Tracking System**

**Corresponding Author:** aditi.agarwal@iiap.res.in



**Gas Detectors - Poster Session / 289**

## **Protection of the vacuum-working drift chambers with thin-walled tubes (straw) from working gas leakage into vacuum**

**Corresponding Author:** glonti@sunse.jinr.ru

**Detector Techniques for Cosmology, Astroparticle and Fundamental Physics - Poster Session / 108**

## **ProtoDUNE: prototyping the ultimate medium high energy range (MeV - GeV) neutrino detector**

**Corresponding Author:** acciarri@fnal.gov

**Photo Detectors and PID - Poster Session / 138**

## **Proton flux monitor(s) for the UA9 Experiment**

**Corresponding Author:** dubos@lal.in2p3.fr

**Round Table - Evolution of Research Infrastructures for Frontier Physics and the Need of Cutting-Edge Technologies / 60**

## **Question Time**

**Corresponding Authors:** fabrizio.renzi@roma1.infn.it, fernando.ferroni@roma1.infn.it, junji.haba@kek.jp, lucio.rossi@cern.ch, thomas.fritzsch@izm.fraunhofer.de, sergio.bertolucci@bo.infn.it, fretiere@triumf.ca

**Solid State Detectors - Poster Session / 195**

## **R&D on CO<sub>2</sub> cooling using a silicon Microchannel substrate for the LHCb VELO**

**Corresponding Author:** v.franco-lima@liv.ac.uk

**Application to Life Sciences and Other Challenges - Poster Session / 251**

## **RADIATION AND THERMAL STRESS TESTS ON DIAMOND DETECTORS FOR THE RADIAL NEUTRON CAMERA OF ITER**

**Corresponding Author:** fulvio.pompili@enea.it

**Photo Detectors and PID - Poster Session / 116**

## **Radiation Damage Effect on Time Resolution of 6 Series-connected SiPMs for MEG II Positron Timing Counter**

**Corresponding Author:** usami@icepp.s.u-tokyo.ac.jp

**Solid State Detectors - Poster Session / 194**

## **Radiation Damage of LHCb's Silicon Detector Systems**

**Corresponding Author:** carlos.abellan.beteta@cern.ch

**Solid State Detectors - Poster Session / 173**

## **Radiation hardness investigation of thin and low resistivity bulk silicon detectors**

**Corresponding Author:** geetikajain.hep@gmail.com

**Front, Trigger, DAQ and Data Management - Poster session / 347**

## **Radiation study of FPGAs with neutron beam for the COMET Phase-I**

**Corresponding Author:** y-nakazawa@kuno-g.phys.sci.osaka-u.ac.jp

**Solid State Detectors - Poster Session / 184**

## **Radiation tolerance characterization of geiger-mode CMOS avalanche diodes for the design of a dual-layer particle detector**

**Corresponding Author:** marco.musacci01@universitadipavia.it

**Solid State Detectors / 32**

## **Radiation-Hard CMOS Monolithic Pixel Sensor Development based on the Column-Drain Architecture for the ATLAS ITK Upgrade**

**Corresponding Author:** moustakas@physik.uni-bonn.de

Front, Trigger, DAQ and Data Management - Poster session / 323

## **Readout chain validation of INFN modules for the CTA-pSCT camera**

Corresponding Author: serena.loporchio@ba.infn.it

Photo Detectors and PID - Poster Session / 119

## **Real-Time Measurement System with Automatic Gain Detection and Autocalibration for Silicon Photomultipliers**

Corresponding Author: pdorosz@agh.edu.pl

Application to Life Sciences and Other Challenges - Poster Session / 244

## **Real-time wireless personal dosimeter for Interventional Radiology Procedures.**

Corresponding Author: leonello.servoli@pg.infn.it

Application to Life Sciences and Other Challenges - Poster Session / 258

## **Recent achievements in Life Sciences of the TwinMic soft spectromicroscopy beamline at Elettra**

Front, Trigger, DAQ and Data Management / 84

## **Recent developments in the CBC3, a CMS micro-strip readout ASIC for track-trigger modules at the HL-LHC**

Corresponding Author: sarah.storey@cern.ch

Front, Trigger, DAQ and Data Management - Poster session / 333

## **Reconstruction at 30 MHz for the LHCb upgrade.**

Corresponding Author: szumlak@agh.edu.pl

Calorimetry - Poster Session / 201

## **Robustness studies of the Photomultipliers reading out TileCal, the central hadron calorimeter of the ATLAS experiment**

**Corresponding Author:** giulia.digregorio@pi.infn.it

**Detector Techniques for Cosmology, Astroparticle and Fundamental Physics / 5**

### **S1-Poster Review**

**Corresponding Author:** mose.mariotti@pd.infn.it

**Calorimetry / 39**

### **S4 - Poster Review**

**Corresponding Author:** martin.aleksa@cern.ch

**Cryogenic / Supeconductive Devices / 47**

### **S5 - Poster Review**

**Corresponding Author:** monfardini@neel.cnrs.fr

**Application to Life Sciences and Other Challanges / 64**

### **S6 - Poster Review**

**Corresponding Author:** juanjose.vaquero@uc3m.es

**Gas Detectors / 74**

### **S7-Poster Review 25'**

**Corresponding Author:** malte.hildebrandt@psi.ch

**Front, Trigger, DAQ and Data Management / 82**

### **S8 - Poster Review 1**

**Corresponding Author:** valerio.re@unibg.it

**Front, Trigger, DAQ and Data Management / 83**

## **S8 - Poster Review 2**

**Corresponding Author:** emilio.radicioni@infn.it

**Application to Life Sciences and Other Challenges - Poster Session / 254**

## **SENSE - Ultimate Low Light-Level Sensor Development**

**Corresponding Author:** dstrom@fnal.gov

**Detector Techniques for Cosmology, Astroparticle and Fundamental Physics - Poster Session / 95**

## **Scintillation detectors for TAIGA experiment**

**Corresponding Author:** p.s.kirilenko@gmail.com

**Front, Trigger, DAQ and Data Management - Poster session / 338**

## **Scintillation light DAQ and trigger system for the ICARUS T600 experiment at Fermilab**

**Corresponding Author:** marta.babicz@cern.ch

**Cryogenic / Supeconductive Devices / 45**

## **Searching for Low Mass Dark Matter with the SuperCDMS SNO-LAB Detectors**

**Corresponding Author:** serfass@berkeley.edu

**Solid State Detectors - Poster Session / 182**

## **Searching for a dark photon with PADME at LNF: status of the active diamond target**

**Corresponding Author:** federica.oliva@le.infn.it

**Front, Trigger, DAQ and Data Management - Poster session / 335**

## **Selecting and Designing the Front-end Amplifier for High-gain Photomultiplier Detectors with Optimal Timing Performance**

**Corresponding Author:** francesco.corsi@poliba.it

**Front, Trigger, DAQ and Data Management - Poster session / 358**

## **Self-Contained Configuration Scrubbing in Xilinx FPGAs for On-detector Applications**

**Corresponding Author:** raffaele.giordano@na.infn.it

**Calorimetry - Poster Session / 214**

## **Shashlik calorimeters for the ENUBET tagged neutrino beam**

**Corresponding Author:** michelangelo.pari@pd.infn.it

**Application to Life Sciences and Other Challenges / 65**

## **SiPM-based PET detector module for a $4\pi$ span scanner**

**Corresponding Author:** daperezb@pa.uc3m.es

**Front, Trigger, DAQ and Data Management - Poster session / 357**

## **Silicon Drift Detectors arrays and readout ASICs for the SIDDHARTA experiment**

**Corresponding Author:** aidin.amirkhani@polimi.it

**Solid State Detectors - Poster Session / 155**

## **Silicon Photomultiplier Detector with Multipurpose In-Pixel Electronics in Standard CMOS Technology**

**Corresponding Author:** roberto.blanco@kit.edu

**Application to Life Sciences and Other Challenges - Poster Session / 262**

## **Silicon Photomultipliers Applied to Fluorescence Detection of Biomarkers**

Corresponding Author: pdorosz@agh.edu.pl

Gas Detectors - Poster Session / 294

## **Small-Strip Thin Gap Chambers for the Muon Spectrometer Upgrade of the ATLAS Experiment**

Corresponding Author: rrojas@cern.ch

Gas Detectors / 78

## **Small-pad Resistive Micromegas for high rate environment: Performance of different resistive protection concepts**

Corresponding Author: massimo.dellapietra@na.infn.it

Front, Trigger, DAQ and Data Management - Poster session / 348

## **Software framework architecture for the high data rate soft X-rays PERCIVAL imager**

Corresponding Author: benjamin.boitrelle@desy.de

Detector Techniques for Cosmology, Astroparticle and Fundamental Physics - Poster Session / 89

## **Space fluorescence detection of ultra-high energy cosmic rays based on CORSIKA simulation**

Corresponding Author: djemil@ticedu.net

Gas Detectors - Poster Session / 273

## **Spatial resolution of triple-GEM detectors**

Corresponding Author: timofei.maltsev@gmail.com

Photo Detectors and PID - Poster Session / 145

## **Spatial time resolution of MCP-PMTs as a time reference with sub-4 picoseconds precision**

Corresponding Author: lukas.sohl@cea.fr

Gas Detectors / 77

## **Spherical proportional counters: development, improvement and understanding**

Corresponding Author: alexis.brossard@queensu.ca

Solid State Detectors - Poster Session / 185

## **Status of the vertex detector program of the CBM experiment at FAIR**

Corresponding Author: klaus@physik.uni-frankfurt.de

Gas Detectors - Poster Session / 296

## **Studies of the MicroMegas performances using the SM1 prototype with data recorded at the Cosmic Ray Stand of LNF**

Corresponding Author: giada.mancini@lnf.infn.it

Gas Detectors - Poster Session / 271

## **Study of performances of a straw tube detector with high rate**

Corresponding Author: saikatb@veccal.ernet.in

Gas Detectors - Poster Session / 272

## **Study of stability of gain and energy resolution for GEM detector**

Corresponding Author: sr.phys@gmail.com

Gas Detectors - Poster Session / 290



## **Study of uniformity of characteristics over the surface for triple GEM detector**

**Corresponding Author:** shreyaroy2509@gmail.com

**Cryogenic / Supeconductive Devices - Poster Session / 227**

## **Study on breakdown voltage, quenching resistance and gain from room temperature down to 50 K**

**Corresponding Author:** alessandro.menegolli@pv.infn.it

**Solid State Detectors - Poster Session / 156**

## **Systematic Modeling and Simulations with Analytical Solutions of Electric and Weighting Fields of 2D-Planar-Electrode and 3D-Trench-Electrode Detectors and Detector Array in Cartesian and Cylindrical Coordinates**

**Corresponding Author:** zhengl@bnl.gov

**Photo Detectors and PID - Poster Session / 126**

## **TORCH: a large area time-of-flight detector for particle identification**

**Corresponding Author:** neville.harnew@physics.ox.ac.uk

**Round Table - Evolution of Research Infrastructures for Frontier Physics and the Need of Cutting-Edge Technologies / 54**

## **TRIUMF**

**Corresponding Author:** fretiere@triumf.ca

**Solid State Detectors / 30**

## **Technologies for Future Vertex and Tracking Detectors at CLIC**

**Corresponding Author:** simon.spannagel@cern.ch

**Solid State Detectors - Poster Session / 196**

## **Technology Experience in the Construction of Silicon Trackers Detectors for Space Experiments**

**Corresponding Author:** maria.ionica@pg.infn.it

**Application to Life Sciences and Other Challenges - Poster Session / 249**

## **Test beam facilities at BINP**

**Corresponding Author:** v.s.bobrovnikov@inp.nsk.su

**Calorimetry - Poster Session / 215**

## **Test beam results of a Silicon-PhotoMultiplier based Dual-Readout Calorimeter module**

**Corresponding Author:** m.antonello@studenti.uninsubria.it

**Front, Trigger, DAQ and Data Management - Poster session / 321**

## **Test of a New Octal Amplifier Shaper Discriminator Chip for the ATLAS MDT Chambers at HL-LHC**

**Corresponding Author:** kroha@mpp.mpg.de

**Gas Detectors - Poster Session / 293**

## **Test of new Eco-Gas mixtures for the Multigap Resistive Plate Chambers of the EEE Project**

**Corresponding Author:** marina.trimarchi@me.infn.it

**Front, Trigger, DAQ and Data Management / 85**

## **Test results and prospects for RD53A, a large scale 65 nm CMOS chip for pixel readout at the HL-LHC**

**Corresponding Author:** luigi.gaioni@pv.infn.it

**Calorimetry - Poster Session / 200**

## **Test results of 3D fine-grained scintillator detector prototype for a T2K ND280 neutrino active target**

**Corresponding Author:** oleg@inr.ru

**Front, Trigger, DAQ and Data Management - Poster session / 346**

## **Testing and integration of front end electronics for INO-ICAL RPCs**

**Corresponding Author:** ankitphysics09@gmail.com

**Welcome Addresses & Opening Talk / 1**

## **The APPEC roadmap for Astroparticle Physics, experiments and detectors**

**Corresponding Author:** katsan@apc.in2p3.fr

**Photo Detectors and PID - Poster Session / 131**

## **The Barrel DIRC detector of PANDA**

**Corresponding Author:** c.schwarz@gsi.de

**Solid State Detectors - Poster Session / 197**

## **The Belle II Silicon Vertex Detector**

**Corresponding Author:** richard.thalmeier@oeaw.ac.at

**Solid State Detectors / 26**

## **The Belle II Vertex Detector Integration**

**Corresponding Author:** peter.kodys@mff.cuni.cz

**Calorimetry / 41**

## **The CMS High Granularity Calorimeter for the High Luminosity LHC**

**Corresponding Author:** manfred.valentan@oeaw.ac.at

Front, Trigger, DAQ and Data Management - Poster session / 329

## **The CMS Level-1 tau lepton and vector boson fusion triggers for the LHC Run II**

**Corresponding Author:** cristina.martin.perez@cern.ch

Solid State Detectors / 23

## **The CMS Tracker Upgrade for the High Luminosity LHC**

**Corresponding Author:** martin.delcourt@cern.ch

Photo Detectors and PID - Poster Session / 135

## **The Endcap Disc DIRC detector of PANDA**

**Corresponding Author:** klaus.foehl@exp2.physik.uni-giessen.de

Solid State Detectors - Poster Session / 190

## **The Gigatracker detector of the NA62 experiment at CERN SPS**

**Corresponding Author:** lfederic@cern.ch

Detector Techniques for Cosmology, Astroparticle and Fundamental Physics / 6

## **The HEPD detector on board CSES satellite: in-flight performance**

**Corresponding Author:** giuseppe.osteria@na.infn.it

Cryogenic / Supeconductive Devices - Poster Session / 232

## **The ICARUS T600 detector overhaul at CERN**

**Corresponding Author:** andrea.zani@cern.ch

**Application to Life Sciences and Other Challenges - Poster Session / 260**

## **The INSIDE bimodal system for range monitoring in particle therapy toward clinical validation**

**Corresponding Author:** giuseppina.bisogni@pi.infn.it

**Detector Techniques for Cosmology, Astroparticle and Fundamental Physics / 2**

## **The Imaging X-ray Polarimetry Explorer (IXPE)**

**Corresponding Author:** carmelo.sgro@pi.infn.it

**Solid State Detectors / 24**

## **The LHCb VELO Upgrade**

**Corresponding Author:** v.franco-lima@liv.ac.uk

**Calorimetry - Poster Session / 198**

## **The LUCID-2 detector**

**Corresponding Author:** carla.sbarra@bo.infn.it

**Front, Trigger, DAQ and Data Management - Poster session / 340**

## **The MYTHEN-III strip detector prototypes**

**Corresponding Author:** marie.andrae@psi.ch

**Front, Trigger, DAQ and Data Management - Poster session / 366**

## **The Monitoring Electronics of the Laser Calibration System in the Muon g-2 experiment**

**Corresponding Author:** michele.iacovacci@na.infn.it

**Calorimetry - Poster Session / 222**

## **The Mu2e calorimeter: QA of production crystals and SiPMs and results from Module-0 test beam**

**Corresponding Author:** stefano.difalco@pi.infn.it

**Gas Detectors - Poster Session / 287**

## **The Multi-Blade 10B-based neutron detector**

**Corresponding Author:** francesco.messi@nuclear.lu.se

**Photo Detectors and PID - Poster Session / 133**

## **The PANDA barrel-TOF detector at FAIR**

**Corresponding Author:** sebastian.zimmermann@oeaw.ac.at

**Solid State Detectors / 22**

## **The Phase-2 ATLAS ITk Pixel Upgrade**

**Corresponding Author:** annamac@mpp.mpg.de

**Front, Trigger, DAQ and Data Management - Poster session / 328**

## **The Phase-I Trigger Readout Electronics Upgrade of the ATLAS Liquid Argon Calorimeters**

**Corresponding Author:** yi-lin.yang@cern.ch

**Calorimetry - Poster Session / 209**

## **The Projectile Spectator Detector for measurement of geometry of heavy ion collisions at the CBM experiment at FAIR**

**Corresponding Author:** nkarpushkin@mail.ru

**Application to Life Sciences and Other Challenges - Poster Session / 269**

## **The Restoration of Early Sound Recordings using Optical Metrology and Image Analysis**

Corresponding Author: [chhaber@lbl.gov](mailto:chhaber@lbl.gov)

Solid State Detectors / 29

## **The Silicon Tracking System of the CBM experiment at FAIR**

Corresponding Author: [hans-rudolf.schmidt@uni-tuebingen.de](mailto:hans-rudolf.schmidt@uni-tuebingen.de)

Photo Detectors and PID - Poster Session / 117

## **The TORCH PMT, a close packing, long life MCP-PMT for Cherenkov applications with a novel high granularity multi-anode**

Corresponding Author: [james.milnes@photek.co.uk](mailto:james.milnes@photek.co.uk)

Solid State Detectors - Poster Session / 165

## **The XAFS Fluorescence Detector System based on 64 Silicon Drift Detectors for the SESAME Synchrotron Light Source.**

Corresponding Author: [alexander.rashevsky@ts.infn.it](mailto:alexander.rashevsky@ts.infn.it)

Photo Detectors and PID - Poster Session / 142

## **The 'Gen-II' LAPPD<sup>TM</sup>: Large-Area Ceramic-Body Planar MCP-based Photo-Detectors: Large-Area Ceramic-Body Planar MCP-based Photo-Detectors**

Corresponding Author: [elagin@hep.uchicago.edu](mailto:elagin@hep.uchicago.edu)

Front, Trigger, DAQ and Data Management - Poster session / 354

## **The algorithm of the CMS Level-1 Overlap Muon Track Finder trigger**

Corresponding Author: [kbunkow@cern.ch](mailto:kbunkow@cern.ch)

Calorimetry / 40

## **The calibration system for the g-2 calorimeters**

**Corresponding Author:** [anna.driutti@uniud.it](mailto:anna.driutti@uniud.it)

**Calorimetry - Poster Session / 216**

## **The calorimeters of the PADME experiment**

**Corresponding Author:** [paola.gianotti@lnf.infn.it](mailto:paola.gianotti@lnf.infn.it)

**Detector Techniques for Cosmology, Astroparticle and Fundamental Physics - Poster Session / 103**

## **The charged particle veto system of the PADME experiment**

**Corresponding Author:** [federica.oliva@le.infn.it](mailto:federica.oliva@le.infn.it)

**Gas Detectors - Poster Session / 309**

## **The construction technique of the new MEG2 tracker**

**Corresponding Author:** [gianluigi.chiarellor@roma1.infn.it](mailto:gianluigi.chiarellor@roma1.infn.it)

**Detector Techniques for Cosmology, Astroparticle and Fundamental Physics - Poster Session / 10**

## **The detectors of the SHiP experiment at CERN**

**Corresponding Author:** [elena.graverini@cern.ch](mailto:elena.graverini@cern.ch)

**Detector Techniques for Cosmology, Astroparticle and Fundamental Physics - Poster Session / 90**

## **The development of the Icarus T600 laser diode calibration system**

**Corresponding Author:** [maurizio.bonesini@mib.infn.it](mailto:maurizio.bonesini@mib.infn.it)

**Detector Techniques for Cosmology, Astroparticle and Fundamental Physics - Poster Session / 107**



## **The double turn method based on mono-chromatic positrons for the measurement of the MEGII spectrometer resolutions**

Corresponding Author: patrick.schwendimann@psi.ch

Detector Techniques for Cosmology, Astroparticle and Fundamental Physics - Poster Session / 98

## **The downstream Muon detector of the SHiP experiment**

Corresponding Author: ntosi@bo.infn.it

Calorimetry - Poster Session / 217

## **The first large calorimeter based on Lanthanum Bromide coupled to Silicon Photomultipliers: Status and Predictions**

Corresponding Author: patrick.schwendimann@psi.ch

Detector Techniques for Cosmology, Astroparticle and Fundamental Physics - Poster Session / 102

## **The investigation on the dark sector at the PADME experiment**

Gas Detectors - Poster Session / 285

## **The micro-Resistive WELL detector for the phase 2 upgrade of the LHCb muon detector**

Corresponding Author: morello@lnf.infn.it

Solid State Detectors - Poster Session / 177

## **The new Fast Beam Condition Monitor using diamond and silicon sensors for luminosity measurement at CMS**

Corresponding Author: moritz.guthoff@desy.de

Solid State Detectors / 25

## **The new Inner Tracking System for the ALICE upgrade at LHC**

**Corresponding Author:** antonio.di.mauro@cern.ch

**Gas Detectors - Poster Session / 284**

## **The new drift chamber of the MEG II experiment**

**Corresponding Author:** marco.chiappini@pi.infn.it

**Application to Life Sciences and Other Challenges - Poster Session / 263**

## **The new sample preparation line for radiocarbon measurements at the INFN Bari laboratory**

**Corresponding Author:** francesco.barile@ba.infn.it

**Front, Trigger, DAQ and Data Management - Poster session / 355**

## **The new trigger/GPS module for the EEE Project**

**Corresponding Author:** mariapaola.panetta@le.infn.it

**Front, Trigger, DAQ and Data Management - Poster session / 367**

## **The performance of the CMS ECAL data acquisition system at LHC Run 2**

**Corresponding Author:** tanvi.wamorkar@cern.ch

**Gas Detectors - Poster Session / 306**

## **The tracking system for the IDEA detector at future lepton colliders**

**Corresponding Author:** giovanni.tassielli@le.infn.it

**Gas Detectors / 69**

## **The upgrade of the ATLAS Muon System for High-Luminosity LHC**

**Corresponding Author:** christoph.amelung@cern.ch

**Calorimetry - Poster Session / 210**

**The upgrade of the CMS PbWO<sub>4</sub> crystal electromagnetic calorimeter for the HL-LHC and prospects for precision timing resolution**

**Corresponding Author:** giorgio.ghillardi@to.infn.it

**Photo Detectors and PID - Poster Session / 115**

**The upgraded beam monitor system for the FAMU experiment at RIKEN-RAL**

**Corresponding Author:** maurizio.bonesini@mib.infn.it

**Application to Life Sciences and Other Challenges - Poster Session / 255**

**The  $\Delta E$ -TOF detector of the FOOT experiment: experimental tests and Monte Carlo simulations**

**Corresponding Author:** esther.ciarrocchi@pi.infn.it

**Cryogenic / Supeconductive Devices - Poster Session / 229**

**Thermal kinetic inductance detectors for soft X-ray spectroscopy**

**Corresponding Author:** marco.faverzani@mib.infn.it

**Gas Detectors - Poster Session / 307**

**Timing studies of a bakelite multi-gap resistive plate chamber**

**Corresponding Author:** r.ganai@gsi.de

**Front, Trigger, DAQ and Data Management - Poster session / 334**

**Towards new Front-End Electronics for the HADES Drift Chamber System**

**Corresponding Author:** m.wiebusch@gsi.de

**Front, Trigger, DAQ and Data Management - Poster session / 324**

## **Towards the large area HVCMOS demonstrator for ATLAS ITk**

**Corresponding Author:** mridula.prathapan@kit.edu

**Front, Trigger, DAQ and Data Management - Poster session / 356**

## **Trigger Performance Verification and Simulation of the Flash-Cam Prototype Camera**

**Corresponding Author:** simon.sailer@mpi-hd.mpg.de

**Gas Detectors - Poster Session / 275**

## **Ultra long-lived particles searches with MATHUSLA**

**Corresponding Author:** giovanni.marsella@le.infn.it

**Gas Detectors - Poster Session / 280**

## **Upgrade of the ATLAS Muon Spectrometer with new Small-Diameter Drift-tube Chambers**

**Corresponding Author:** nowak@mpp.mpg.de

**Front, Trigger, DAQ and Data Management - Poster session / 318**

## **Upgrade of the ATLAS detectors and trigger at the High Luminosity LHC: tracking and timing for pile-up suppression**

**Corresponding Author:** marianna.testa@lnf.infn.it

**Photo Detectors and PID - Poster Session / 122**

## **Upgrade of the Time-of-Flight system of the CMD-3 detector**

**Corresponding Author:** amirkhanovartem@gmail.com

Gas Detectors / 73

## **Upgrade of the tracking system of the CMD-3 detector with micro-RWELL technology**

Corresponding Author: [li.shekhtman@inp.nsk.su](mailto:li.shekhtman@inp.nsk.su)

Gas Detectors / 70

## **Upgrade plans and aging studies for the CMS muon system in preparation of HL-LHC**

Corresponding Author: [jian.wang@cern.ch](mailto:jian.wang@cern.ch)

Gas Detectors - Poster Session / 301

## **Upgrade program of the RPC system of the CMS Muon Spectrometer**

Corresponding Author: [voevodina@na.infn.it](mailto:voevodina@na.infn.it)

Front, Trigger, DAQ and Data Management - Poster session / 327

## **Upgraded back-end electronics for the CMS Fast Beam Conditions Monitor**

Corresponding Author: [ntosi@bo.infn.it](mailto:ntosi@bo.infn.it)

Photo Detectors and PID - Poster Session / 129

## **Use of silicon photonics wavelength multiplexing techniques for fast parallel readout in high energy physics**

Corresponding Author: [fabio.dematteis@roma2.infn.it](mailto:fabio.dematteis@roma2.infn.it)

Front, Trigger, DAQ and Data Management - Poster session / 317

## **WaveDAQ: an highly integrated trigger and data acquisition system**

Corresponding Author: [luca.galli@pi.infn.it](mailto:luca.galli@pi.infn.it)

**Front, Trigger, DAQ and Data Management - Poster session / 312**

## **Web-based Experiment Monitoring with HTML5**

**Corresponding Author:** stefan.ritt@psi.ch

**Application to Life Sciences and Other Challenges - Poster Session / 259**

## **XRF topography information; simulations and data from a novel SDD system 1'**

**Corresponding Author:** george.kourousias@elettra.eu

**Cryogenic / Superconductive Devices - Poster Session / 234**

## **maXs: Micro-calorimeter Arrays for High Resolution X-Ray Spectroscopy in Atomic Physics**

**Corresponding Author:** u.spillmann@gsi.de