Tenth Intl. Workshop on Pixel Detectors for Particles and Imaging

Report of Contributions

Contribution ID: **6**   Type: **not specified**

Status of the BELLE II Pixel Detector

Monday, 12 December 2022 10:55 (20 minutes)

Primary author: GIAKOUSTIDIS, Georgios (University of Bonn (DE))

Presenter: GIAKOUSTIDIS, Georgios (University of Bonn (DE))

Session Classification: Pixel systems in current experiments

Contribution ID: **7**   Type: **not specified**

Status of the LHCb Pixel Detector

Friday, 16 December 2022 10:10 (20 minutes)

Primary author: LEMOS CID, Edgar (Universidade de Santiago de Compostela (ES))

Presenter: LEMOS CID, Edgar (Universidade de Santiago de Compostela (ES))

Session Classification: New pixel materials and configurations

Contribution ID: **8**   Type: **not specified**

Status of the ATLAS Pixel Detector

Monday, 12 December 2022 11:15 (20 minutes)

Primary author: BATTAGLIA, Marco (University of California,Santa Cruz (US))

Presenter: BATTAGLIA, Marco (University of California,Santa Cruz (US))

Session Classification: Pixel systems in current experiments

Contribution ID: **9** Type: **not specified**

Status of the CMS Pixel Detector

Monday, 12 December 2022 16:15 (20 minutes)

Primary author: VESZPREMI, Viktor (Wigner RCP, Budapest (HU))

Presenter: VESZPREMI, Viktor (Wigner RCP, Budapest (HU))

Session Classification: Fast timing

Contribution ID: **10**   Type: **not specified**

Status of the ALICE Pixel Detector

Monday, 12 December 2022 11:35 (20 minutes)

Primary author: PANEBIANCO, Stefano Matthias (Université Paris-Saclay (FR))

Presenter: PANEBIANCO, Stefano Matthias (Université Paris-Saclay (FR))

Session Classification: Pixel systems in current experiments

Contribution ID: **11**   Type: **not specified**

Novel Detectors for Tracking and Timing

Monday, 12 December 2022 10:00 (35 minutes)

Primary author: HARTMANN, Frank (KIT - Karlsruhe Institute of Technology (DE))

Presenter: HARTMANN, Frank (KIT - Karlsruhe Institute of Technology (DE))

Session Classification: Pixel system performance

Contribution ID: **12**   Type: **Talk**

Pixel Detectors Past and Future

Monday, 12 December 2022 09:15 (45 minutes)

Primary author: HEIJNE, Erik (Czech Technical University in Prague (CZ))

Presenters: HEIJNE, Erik (Czech Technical University in Prague (CZ));   SNOEYS, Walter (CERN)

Session Classification: Pixel Detectors Past and Future

Contribution ID: **13**   Type: **Talk**

VELO Upgrade II- the LHCb 4D Pixel Detector

Monday, 12 December 2022 13:35 (20 minutes)

Primary author: PAJERO, Tommaso (University of Oxford)

Presenter: PAJERO, Tommaso (University of Oxford)

Session Classification: Fast timing

Contribution ID: **14**   Type: **not specified**

Pixel Readout for Large Cryogenic Detectors

Monday, 12 December 2022 16:55 (20 minutes)

Primary author: DWYER, Dan (Lawrence Berkeley National Lab)

Presenter: DWYER, Dan (Lawrence Berkeley National Lab)

Session Classification: Space, Astronomy, Dark Matter

Contribution ID: 15 Type: **not specified**

CMOS Sensors for the Subaru Telescope

Primary author: MIYAZAKI, Satoshi

Presenter: MIYAZAKI, Satoshi

Session Classification: Space, Astronomy, Dark Matter

Contribution ID: **16** Type: **not specified**

X-ray polarization measurements with CMOS for satellites

Monday, 12 December 2022 17:35 (20 minutes)

Presenter: ODAKA, Hirokazu

Session Classification: Space, Astronomy, Dark Matter

Contribution ID: **17**   Type: **not specified**

Welcome

Monday, 12 December 2022 09:00 (5 minutes)

Presenter: SEIDEL, Sally (University of New Mexico / ATLAS)

Session Classification: Welcome addresses

Contribution ID: **18**　　　　　　　　　　　　　　　　　Type: **not specified**

Welcome from the Dean of Arts and Sciences

Monday, 12 December 2022 09:05 (10 minutes)

Primary author:　MAFI, Arash

Presenter:　MAFI, Arash

Session Classification:　Welcome addresses

Contribution ID: **19**   Type: **not specified**

The BELLEII Pixel Upgrade

Presenter: MARINAS, Carlos (University of Bonn)

Session Classification: Pixel system upgrades

Contribution ID: **20**　　　　　　　　　　　　　　　　　　　　　　　　Type: **Talk**

The ATLAS Pixel Upgrade

Tuesday, 13 December 2022 08:50 (20 minutes)

Primary author:　BUTTAR, Craig Macleod (University of Glasgow (GB))

Presenter:　BUTTAR, Craig Macleod (University of Glasgow (GB))

Session Classification:　Pixel system upgrades

Contribution ID: **21**   Type: **not specified**

The CMS Pixel Upgrade

Tuesday, 13 December 2022 08:30 (20 minutes)

Presenter: MACCHIOLO, Anna (Universitaet Zuerich (CH))

Session Classification: Pixel system upgrades

Contribution ID: **22**   Type: **not specified**

The LHCb Pixel Upgrade

Session Classification: Pixel system upgrades

Contribution ID: **23**   Type: **Talk**

The ALICE Pixel Sensor Upgrade

Tuesday, 13 December 2022 09:30 (20 minutes)

Primary author: LAUTNER, Lukas (Technische Universitat Munchen (DE))

Presenter: LAUTNER, Lukas (Technische Universitat Munchen (DE))

Session Classification: Pixel system upgrades

Contribution ID: **24**   Type: **Talk**

Integrating imaging detectors: from CCDs to hybrid pixel detectors

Tuesday, 13 December 2022 10:50 (20 minutes)

Primary authors: CARINI, Gabriella; THOM, Julia (Cornell University)

Presenters: CARINI, Gabriella; THOM, Julia (Cornell University)

Session Classification: X-ray systems

Contribution ID: **25**
Type: **not specified**

Pixel detector development at SLAC

Primary author: KENNEY, Chris (SLAC)

Presenter: KENNEY, Chris (SLAC)

Session Classification: X-ray systems

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Pixel detector development at SLAC

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Contribution ID: **26**

Type: **not specified**

Ultrafast X-ray Imaging

Tuesday, 13 December 2022 11:10 (20 minutes)

Primary author: CLAUS, Liam (Advanced hCMOS Systems)

Presenter: CLAUS, Liam (Advanced hCMOS Systems)

Session Classification: X-ray systems

Contribution ID: **27**   Type: **not specified**

The next generation of AGIPD

Session Classification: X-ray systems

Contribution ID: **28** Type: **not specified**

Photon Science

Primary author: MOZZANICA, Aldo (PSI - Paul Scherrer Institut)

Presenter: MOZZANICA, Aldo (PSI - Paul Scherrer Institut)

Session Classification: X-ray systems

Contribution ID: **29**   Type: **not specified**

Monolithic sensors for proton therapy

Tuesday, 13 December 2022 14:50 (20 minutes)

Primary author: Prof. GIUBILATO, Piero (Universita e INFN, Padova (IT))

Presenter: Prof. GIUBILATO, Piero (Universita e INFN, Padova (IT))

Session Classification: Other scientific applications

Contribution ID: **30**   Type: **not specified**

Precision timing with silicon detectors

Monday, 12 December 2022 13:15 (20 minutes)

Primary author: KRAMBERGER, Gregor (Jozef Stefan Institute (SI))

Presenter: KRAMBERGER, Gregor (Jozef Stefan Institute (SI))

Session Classification: Fast timing

Contribution ID: **31**   Type: **not specified**

Pixel sensor characterization

Primary author: EBRAHIMI, Aliakbar (Paul Scherrer Institute (CH))

Presenter: EBRAHIMI, Aliakbar (Paul Scherrer Institute (CH))

Session Classification: Radiation damage studies

Contribution ID: **32**   Type: **not specified**

Results on 3D pixel sensors for the CMS upgrade at the HL-LHC

Tuesday, 13 December 2022 17:10 (20 minutes)

Primary author: CECCARELLI, Rudy (Universita e INFN, Firenze (IT))

Presenter: CECCARELLI, Rudy (Universita e INFN, Firenze (IT))

Session Classification: Radiation damage studies

Contribution ID: **33**   Type: **Talk**

Development of SiPM detectors: technological solutions

Primary author: PATERNOSTER, Giovanni (Fondazione Bruno KEssler)

Presenter: PATERNOSTER, Giovanni (Fondazione Bruno KEssler)

Session Classification: Radiation damage studies

Contribution ID: **34**   Type: **not specified**

Pixel detectors with built-in signal processing and bandwidth-efficient data transmission

Wednesday, 14 December 2022 08:30 (20 minutes)

Primary author: DEPTUCH, Grzegorz (Brookhaven National Laboratory (US))

Presenter: DEPTUCH, Grzegorz (Brookhaven National Laboratory (US))

Session Classification: Pixel electronics

Contribution ID: **35**
Type: **Talk**

Results from RD53

Primary author: HEIM, Timon (Lawrence Berkeley National Lab. (US))

Presenter: HEIM, Timon (Lawrence Berkeley National Lab. (US))

Session Classification: Pixel electronics

Contribution ID: **36** Type: **Talk**

IC development for photon science

Wednesday, 14 December 2022 09:30 (20 minutes)

Primary author: DINAPOLI, Roberto (Paul Scherrer Institut)

Presenter: DINAPOLI, Roberto (Paul Scherrer Institut)

Session Classification: Pixel electronics

Contribution ID: **37** Type: **not specified**

Data links for pixels

Primary author: FRANCONI, Laura (Universitaet Bern (CH))

Presenter: FRANCONI, Laura (Universitaet Bern (CH))

Session Classification: Data transmission

Contribution ID: **38**   Type: **not specified**

A readout chain from module to LpGBT

Session Classification: Data transmission

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Contribution ID: **39** Type: **not specified**

An SOI based vertex detector for a collider experiment

Thursday, 15 December 2022 08:30 (20 minutes)

Primary author: YAMADA, Miho (Tokyo Metropolitan College of Industrial Technology)

Presenter: YAMADA, Miho (Tokyo Metropolitan College of Industrial Technology)

Session Classification: SOI

Contribution ID: **40**   Type: **not specified**

SOI pixel detectors for x-ray astronomy

Thursday, 15 December 2022 08:50 (20 minutes)

Primary author: TAKEDA, Ayaki (University of Miyazaki)

Presenter: TAKEDA, Ayaki (University of Miyazaki)

Session Classification: SOI

Contribution ID: **41** 　　　　　　　　　　　　　　　　　Type: **not specified**

Extremely high density and position resolution digital pixel sensors

Primary author: 　CASSE, Gianluigi (University of Liverpool (GB))

Presenter: 　CASSE, Gianluigi (University of Liverpool (GB))

Session Classification: 　CMOS detectors

Contribution ID: **42** Type: **Talk**

CITIUS: a 17400 frames/s x-ray imaging detector

Tuesday, 13 December 2022 11:30 (20 minutes)

Primary author: HATSUI, Takaki (RIKEN)

Presenter: HATSUI, Takaki (RIKEN)

Session Classification: X-ray systems

Contribution ID: **43**   Type: **not specified**

Depleted monolithic active pixels sensor in 180nm TowerJazz CMOS technology with column drain readout architecture

Thursday, 15 December 2022 13:30 (20 minutes)

Primary author: BESPIN, Christian (University of Bonn (DE))

Presenter: BESPIN, Christian (University of Bonn (DE))

Session Classification: CMOS detectors

Contribution ID: 44 Type: **not specified**

TCAD simulation for monolithic sensors

Primary author: MUNKER, Magdalena (CERN)

Presenter: MUNKER, Magdalena (CERN)

Session Classification: CMOS detectors

Tenth Intl. Wor $\cdots$ / Report of Contributions TCAD simulation for monolithic $\cdots$

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Contribution ID: 45 Type: **not specified**

TJ-MALTA

Thursday, 15 December 2022 16:10 (20 minutes)

Primary author: DAO, Valerio (CERN)

Presenter: DAO, Valerio (CERN)

Session Classification: CMOS detectors

Contribution ID: 46   Type: **not specified**

Pixel module assembly for the ATLAS ITk

Thursday, 15 December 2022 10:50 (20 minutes)

Primary author: VAROUCHAS, Dimitris (Centre National de la Recherche Scientifique (FR), IJ-CLab-Orsay)

Presenter: VAROUCHAS, Dimitris (Centre National de la Recherche Scientifique (FR), IJCLab-Orsay)

Session Classification: Progress in Cooling, Mechanics, and Powering of Pixel Detectors

Contribution ID: 47   Type: **not specified**

LHCb module assembly

Primary author: KOSTIUK, Igor (Nikhef National institute for subatomic physics (NL))

Presenter: KOSTIUK, Igor (Nikhef National institute for subatomic physics (NL))

Session Classification: Progress in Cooling, Mechanics, and Powering of Pixel Detectors

Contribution ID: **48**   Type: **Talk**

Directions in electronic packaging technology

Friday, 16 December 2022 10:30 (20 minutes)

Primary author: FRITZSCH, Thomas (Fraunhofer IZM)

Presenter: FRITZSCH, Thomas (Fraunhofer IZM)

Session Classification: Directions in packaging

Contribution ID: 49   Type: **not specified**

Germanium CCDs

Friday, 16 December 2022 09:30 (20 minutes)

Presenter: LEITZ, Christopher

Session Classification: New pixel materials and configurations

Contribution ID: **50**   Type: **not specified**

Summary and outlook

Friday, 16 December 2022 11:20 (1 hour)

Primary author: MIKUZ, Marko (Jozef Stefan Institute (SI))

Presenter: MIKUZ, Marko (Jozef Stefan Institute (SI))

Session Classification: Summary and outlook

Contribution ID: **51**
Type: **not specified**

LF-Monopix2

Thursday, 15 December 2022 16:30 (20 minutes)

Primary author: BREUGNON, Patrick (Centre National de la Recherche Scientifique (FR))

Presenter: BREUGNON, Patrick (Centre National de la Recherche Scientifique (FR))

Session Classification: CMOS detectors

Contribution ID: **54**   Type: **Talk**

Pixel detector developments for future lepton colliders

Thursday, 15 December 2022 15:30 (20 minutes)

Primary author: DANNHEIM, Dominik (CERN)

Presenter: DANNHEIM, Dominik (CERN)

Session Classification: CMOS detectors

Contribution ID: **55**   Type: **Talk**

High purity germanium detectors for medical imaging

Tuesday, 13 December 2022 13:10 (20 minutes)

Primary author: Prof. PETERSON, Todd (Vanderbilt University)

Presenter: Prof. PETERSON, Todd (Vanderbilt University)

Session Classification: Medical Imaging, CCDs, Detectors for IR, and Direct electron detection

Contribution ID: **56** Type: **not specified**

The ALICE PIXEL Readout Upgrade

Tuesday, 13 December 2022 09:50 (20 minutes)

Primary author: SARRITZU, Valerio (Universita e INFN, Cagliari (IT))

Presenter: SARRITZU, Valerio (Universita e INFN, Cagliari (IT))

Session Classification: Pixel system upgrades

Contribution ID: **57**　　　　　　　　　　　　　　　　　　　　　　　　Type: **Talk**

Edge Illuminated CZT Strip Detectors for PET and SPECT

Tuesday, 13 December 2022 13:30 (20 minutes)

Primary author:　ABBASZADEH, Shiva (University of California Santa Cruz)

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

Session Classification:　Medical Imaging, CCDs, Detectors for IR, and Direct electron detection

Contribution ID: **58**   Type: **Talk**

SDD Array Detectors for TRISTAN

Friday, 16 December 2022 09:10 (20 minutes)

Primary author: GAVIN, Andrew

Presenter: GAVIN, Andrew

Session Classification: DEPFET

Contribution ID: **59**   Type: **Talk**

10-ps timing with 3D-trench silicon sensors at extreme rates

Monday, 12 December 2022 13:55 (20 minutes)

Primary author: LAI, Adriano (Universita e INFN, Cagliari (IT))

Presenter: LAI, Adriano (Universita e INFN, Cagliari (IT))

Session Classification: Fast timing

Contribution ID: **60**   Type: **Talk**

Progress in Cooling, Mechanics, and Powering of Pixel Detectors

Primary author: ANDERSSEN, Eric (Lawrence Berkeley National Lab (US))

Presenter: ANDERSSEN, Eric (Lawrence Berkeley National Lab (US))

Session Classification: Progress in Cooling, Mechanics, and Powering of Pixel Detectors

Contribution ID: **62**　　　　　　　　　　　　　　　　　　　　　Type: **not specified**

The LHCb Mighty Tracker

Thursday, 15 December 2022 14:50 (20 minutes)

Presenter:　PADEKEN, Klaas (University of Bonn (DE))

Session Classification:　CMOS detectors

Contribution ID: **63**　　　　　　　　　　　　　　　　　　　　　　　　Type: **Talk**

A High Granularity Timing Detector for the ATLAS Phase-II Upgrade

Monday, 12 December 2022 14:15 (20 minutes)

Primary author:　SOARES CANAS FERREIRA, Afonso (CERN)

Presenter:　SOARES CANAS FERREIRA, Afonso (CERN)

Session Classification:　Fast timing

Contribution ID: **64**   Type: **Poster**

Current-voltage characteristics of cadmium-doped p-silicon Schottky diodes

Wednesday, 14 December 2022 11:31 (1 minute)

Primary author: Mr BODRUNIN, Joseph (University of South Africa)

Presenter: Mr BODRUNIN, Joseph (University of South Africa)

Session Classification: Poster session

Contribution ID: **65**   Type: **Talk**

Silicon detector R&D for the future Electron-Ion Collider

Tuesday, 13 December 2022 15:50 (20 minutes)

Presenter: LI, Xuan (Los Alamos National Lab)

Session Classification: Radiation damage studies

Contribution ID: **69**   Type: **Talk**

Progress in diamond detectors

Friday, 16 December 2022 09:50 (20 minutes)

Primary author: WALLNY, Rainer (ETH Zurich (CH))

Presenter: WALLNY, Rainer (ETH Zurich (CH))

Session Classification: New pixel materials and configurations

Contribution ID: **122**   Type: **Poster**

Quality control of pixel modules for the ATLAS Inner Tracker outer barrel demonstrator

Primary author: Mr KHWAIRA, Yahya A R (Université Paris-Saclay (FR))

Presenter: Mr KHWAIRA, Yahya A R (Université Paris-Saclay (FR))

Session Classification: Poster session

Contribution ID: **123**   Type: **Poster**

Monitoring Quality of ATLAS ITk Strip Sensors/wafers through Database

Wednesday, 14 December 2022 11:22 (1 minute)

Primary author: FADEYEV, Vitaliy (University of California,Santa Cruz (US))

Presenter: FADEYEV, Vitaliy (University of California,Santa Cruz (US))

Session Classification: Poster session

Contribution ID: **124**   Type: **Poster**

Innovative digital architecture for low power-consuming MAPS

Wednesday, 14 December 2022 11:22 (1 minute)

Primary author: CHIAPPARA, Davide

Presenter: CHIAPPARA, Davide

Session Classification: Poster session

Contribution ID: **125** Type: **Poster**

YARR DAQ Software for ATLAS ITk Pixel and Strip detectors

Primary author: HEIM, Timon (Lawrence Berkeley National Lab. (US))

Presenter: HEIM, Timon (Lawrence Berkeley National Lab. (US))

Session Classification: Poster session

Contribution ID: **126**   Type: **Poster**

Multi Module 56,000 fps Photon Counting Pixel Array Detector System

Wednesday, 14 December 2022 11:20 (1 minute)

Primary author: NAKAYE, Yasukazu (Rigaku Americas Corporation)

Presenter: NAKAYE, Yasukazu (Rigaku Americas Corporation)

Session Classification: Poster session

Contribution ID: **127**

Type: **Poster**

X-CHIP-04, a novel monolithic pixel detector for X-ray imaging

Wednesday, 14 December 2022 11:31 (1 minute)

Primary authors: MARCISOVSKA, Maria (Czech Technical University in Prague (CZ)); VANCURA, Pavel

Presenters: MARCISOVSKA, Maria (Czech Technical University in Prague (CZ)); VANCURA, Pavel

Session Classification: Poster session

Contribution ID: **128** Type: **Poster**

SpacePix2 MAPS for space radiation detection and first results from the VZLUSAT2 mission

Wednesday, 14 December 2022 11:32 (1 minute)

Primary authors: MARCISOVSKY, Michal (Czech Academy of Sciences (CZ)); NOVOTNY, Radek (University of New Mexico (US))

Presenters: MARCISOVSKY, Michal (Czech Academy of Sciences (CZ)); NOVOTNY, Radek (University of New Mexico (US))

Session Classification: Poster session

Contribution ID: **129** Type: **Poster**

ColorPix - a front-end ASIC for color imaging

Wednesday, 14 December 2022 11:33 (1 minute)

Primary author: JIRSA, Jakub (Czech Technical University in Prague (CZ))

Co-author: MARCISOVSKY, Michal (Czech Academy of Sciences (CZ))

Presenters: JIRSA, Jakub (Czech Technical University in Prague (CZ)); MARCISOVSKY, Michal (Czech Academy of Sciences (CZ))

Session Classification: Poster session

Contribution ID: **130**   Type: **Poster**

PIMEGA DETECTORS ON SIRIUS SYNCHROTRON LIGHT SOURCE

Wednesday, 14 December 2022 11:34 (1 minute)

Primary author: GIMENEZ FERNANDES, Matheus

Presenter: GIMENEZ FERNANDES, Matheus

Session Classification: Poster session

Contribution ID: **131**

Type: **Talk**

Optimization of a 65 nm CMOS imaging technology for monolithic sensors for high energy physics

Thursday, 15 December 2022 14:30 (20 minutes)

Primary author: SNOEYS, Walter (CERN)

Presenter: SNOEYS, Walter (CERN)

Session Classification: CMOS detectors

Contribution ID: **132**

Type: **Talk**

Development of the BCM' system for beam abort and luminosity monitoring at the HL-LHC based on a polycrystalline CVD diamond pixelated system and dedicated front-end ASIC

Tuesday, 13 December 2022 15:10 (20 minutes)

Primary author: GORISEK, Andrej (Jozef Stefan Institute (SI))

Presenter: GORISEK, Andrej (Jozef Stefan Institute (SI))

Session Classification: Other scientific applications

Contribution ID: **133**   Type: **Talk**

Development of SOI-GFAG Compton imager with recoil electron tracking capability

Thursday, 15 December 2022 09:10 (20 minutes)

Primary author: UENOMACHI, Mizuki (Kyoto University)

Presenter: UENOMACHI, Mizuki (Kyoto University)

Session Classification: SOI

Contribution ID: **134**   Type: **Talk**

Simulation study of pulse height difference between pixel patterns of X-ray CCDs onboard the XRISM satellite

Tuesday, 13 December 2022 13:50 (20 minutes)

Primary author: AOKI, Yuma (Kindai University)

Presenter: AOKI, Yuma (Kindai University)

Session Classification: Medical Imaging, CCDs, Detectors for IR, and Direct electron detection

Contribution ID: **135**
Type: **Talk**

Experimental Study and Empirical Modeling of Long Term Annealing of the ATLAS18 Sensors

Tuesday, 13 December 2022 16:10 (20 minutes)

Primary author: ORR, Robert (University of Toronto (CA))

Presenter: ORR, Robert (University of Toronto (CA))

Session Classification: Radiation damage studies

Contribution ID: **136**   Type: **Talk**

CMOS pixel sensors for ULTRASAT

Monday, 12 December 2022 17:55 (20 minutes)

Primary author: WORM, Steven (Deutsches Elektronen-Synchrotron (DE))

Presenter: WORM, Steven (Deutsches Elektronen-Synchrotron (DE))

Session Classification: Space, Astronomy, Dark Matter

Contribution ID: **137**　　　　　　　　　　　　　　　　　　　　　　　　Type: **Talk**

MIRA: a low-noise photon-counting ASIC with 35 μm pixel pitch

Wednesday, 14 December 2022 09:50 (20 minutes)

Primary author:　FABBRICA, Edoardo

Presenter:　FABBRICA, Edoardo

Session Classification:　Pixel electronics

Contribution ID: **138**   Type: **Talk**

Allpix Squared - Monte Carlo Simulations for Semiconductor Detectors in Particle Physics and Beyond

Thursday, 15 December 2022 16:50 (20 minutes)

Primary author: SPANNAGEL, Simon (Deutsches Elektronen-Synchrotron (DE))

Presenter: SPANNAGEL, Simon (Deutsches Elektronen-Synchrotron (DE))

Session Classification: CMOS detectors

Contribution ID: **139**   Type: **Talk**

The monolithic ASIC for the high precision preshower detector of the FASER experiment at the LHC

Wednesday, 14 December 2022 10:10 (20 minutes)

Primary author: PAOLOZZI, Lorenzo (CERN)

Presenter: PAOLOZZI, Lorenzo (CERN)

Session Classification: Pixel electronics

Contribution ID: **140**   Type: **Talk**

First results of the prototype EDET DH80k system

Tuesday, 13 December 2022 14:10 (20 minutes)

Primary author: PREDIKAKA, Mitja

Presenter: PREDIKAKA, Mitja

Session Classification: Medical Imaging, CCDs, Detectors for IR, and Direct electron detection

Contribution ID: **141**   Type: **Talk**

Pebbles: a 50ps time precision analog front-end for pixel sensors in 28nm CMOS technology

Primary author: HEIM, Timon (Lawrence Berkeley National Lab. (US))

Presenter: HEIM, Timon (Lawrence Berkeley National Lab. (US))

Session Classification: Pixel electronics

Contribution ID: **142**   Type: **Talk**

An 8000fps,4kx4k pixels, sparse readout 300keV electron image sensor

Tuesday, 13 December 2022 14:30 (20 minutes)

Primary author: BAMMES, Benjamin (Direct Electron LP)

Presenter: BAMMES, Benjamin (Direct Electron LP)

Session Classification: Medical Imaging, CCDs, Detectors for IR, and Direct electron detection

Contribution ID: **143**   Type: **Talk**

Qualification of the first preproduction 3D FBK sensors with ITkPixV1

Tuesday, 13 December 2022 09:10 (20 minutes)

Primary author: RESSEGOTTI, Martina (INFN e Universita Genova (IT))

Presenter: RESSEGOTTI, Martina (INFN e Universita Genova (IT))

Session Classification: Pixel system upgrades

Contribution ID: **144**   Type: **Poster**

Custom ASIC for monitoring ATLAS ITk pixel services (MOPS)

Primary author: RIZATDINOVA, Flera (Oklahoma State University (US))

Presenter: RIZATDINOVA, Flera (Oklahoma State University (US))

Session Classification: Poster session

Contribution ID: **145**   Type: **Poster**

High-density high-speed service infrastructure for ATLAS ITk pixel detectors

Wednesday, 14 December 2022 11:20 (1 minute)

Primary author: VAN DE WALL, Evan Richard (Oklahoma State University (US))

Presenter: VAN DE WALL, Evan Richard (Oklahoma State University (US))

Session Classification: Poster session

Contribution ID: **146**   Type: **Poster**

ATLAS ITk pixel module bump bond stress analysis

Wednesday, 14 December 2022 11:21 (1 minute)

Primary author: GROSSE-KNETTER, Joern (Georg August Universitaet Goettingen (DE))

Presenter: GROSSE-KNETTER, Joern (Georg August Universitaet Goettingen (DE))

Session Classification: Poster session

Contribution ID: **147**　　　　　　　　　　　　　　　　　　　　　　　　　Type: **Poster**

ATLAS ITkPix Pre-production Planar Sensor Level Characterization for the HL-LHC Upgrade

Wednesday, 14 December 2022 11:35 (1 minute)

Primary author:　TIAN, Yusong (Georg August Universitaet Goettingen (DE))

Presenter:　TIAN, Yusong (Georg August Universitaet Goettingen (DE))

Session Classification:　Poster session

Contribution ID: **148**
Type: **Poster**

CMOS Pixelated Detectors for Multi-probe Radiography

Primary author: Dr WANG, Zhehui (Jeph) (Los Alamos National Laboratory)

Presenter: Dr WANG, Zhehui (Jeph) (Los Alamos National Laboratory)

Session Classification: Poster session

Contribution ID: **149**   Type: **Talk**

Carbon based local supports for the ATLAS ITk-pixel detector

Thursday, 15 December 2022 11:30 (20 minutes)

Primary author: MUNOZ SANCHEZ, Francisca (University of Manchester (GB))

Presenter: MUNOZ SANCHEZ, Francisca (University of Manchester (GB))

Session Classification: Progress in Cooling, Mechanics, and Powering of Pixel Detectors

Contribution ID: **150**
Type: **Talk**

Serial powering for ATLAS ITk pixel modules

Thursday, 15 December 2022 11:10 (20 minutes)

Primary author: CHAN, Jay (University of Wisconsin Madison (US))

Presenter: CHAN, Jay (University of Wisconsin Madison (US))

Session Classification: Progress in Cooling, Mechanics, and Powering of Pixel Detectors

Contribution ID: **151**   Type: **Talk**

SiPM characterization for SBC dark matter search

Primary author: HAWLEY HERRERA, Hector

Presenter: HAWLEY HERRERA, Hector

Session Classification: Space, Astronomy, Dark Matter

Contribution ID: **152**   Type: **Talk**

Testing a prototype of 8x8x32 mm3 CdZnTe detector array

Monday, 12 December 2022 11:55 (20 minutes)

Primary authors: BOLOTNIKOV, Aleksey (Brookhaven National Laboratory);   CARINI, Gabriella

Presenters: BOLOTNIKOV, Aleksey (Brookhaven National Laboratory);   CARINI, Gabriella

Session Classification: Pixel systems in current experiments

Contribution ID: **153**
Type: **Talk**

Overview on current state of the art pixel mechanics for the upgrade tracking detectors at the ATLAS and CMS experiments

Thursday, 15 December 2022 10:30 (20 minutes)

Primary author: SHEA, Owen (The University of Edinburgh (GB))

Presenter: SHEA, Owen (The University of Edinburgh (GB))

Session Classification: Progress in Cooling, Mechanics, and Powering of Pixel Detectors

Contribution ID: 154 Type: **Talk**

TimeSPOT ASIC developments for 4D-pixel readout

Wednesday, 14 December 2022 09:10 (20 minutes)

Primary author: LAI, Adriano (Universita e INFN, Cagliari (IT))

Presenter: LAI, Adriano (Universita e INFN, Cagliari (IT))

Session Classification: Pixel electronics

Contribution ID: **155**　　　　　　　　　　　　　　　　　　　　　Type: **Poster**

Characterization of Hybrid Pixel Detector With Cadmium Telluride Sensor

Wednesday, 14 December 2022 11:21 (1 minute)

Primary author:　BRAGA DA ROSA, Leticia

Presenter:　BRAGA DA ROSA, Leticia

Session Classification:　Poster session

Contribution ID: **156**
Type: **Talk**

AC-coupled Low Gain Avalanche Diodes for 4D tracking: impact of electrode geometry on charge sharing

Monday, 12 December 2022 14:35 (20 minutes)

Primary author: Dr OTT, Jennifer (University of California,Santa Cruz (US))

Presenter: Dr OTT, Jennifer (University of California,Santa Cruz (US))

Session Classification: Fast timing

Contribution ID: **157**   Type: **Talk**

An LGAD-based full active target for the PIONEER experiment

Monday, 12 December 2022 14:55 (20 minutes)

Primary author: Dr MAZZA, Simone Michele (University of California,Santa Cruz (US))

Presenter: Dr MAZZA, Simone Michele (University of California,Santa Cruz (US))

Session Classification: Fast timing

Contribution ID: **158**
Type: **Talk**

Performance studies of Inverse Low Gain Avalanche Detectors (i-LGAD) coupled to the Timepix3 ASIC

Monday, 12 December 2022 15:15 (20 minutes)

Primary author: Dr MANEUSKI, Dima (University of Glasgow (GB))

Presenter: Dr MANEUSKI, Dima (University of Glasgow (GB))

Session Classification: Fast timing

Contribution ID: **159**   Type: **Talk**

MoTiC: Prototype of a Monolithic Particle Tracking Detector with Timing

Monday, 12 December 2022 15:35 (20 minutes)

Primary author: BURKHALTER, Stephan Tobias (ETH Zurich (CH))

Presenter: BURKHALTER, Stephan Tobias (ETH Zurich (CH))

Session Classification: Fast timing

Contribution ID: **160**   Type: **Talk**

MONOLITH - picosecond time stamping capabilities in fully monolithic highly granular silicon pixel detectors

Monday, 12 December 2022 15:55 (20 minutes)

Primary author: PAOLOZZI, Lorenzo (CERN)

Presenter: PAOLOZZI, Lorenzo (CERN)

Session Classification: Fast timing

Contribution ID: **161**   Type: **Talk**

Tracker alignment in CMS: interplay with local pixel reconstruction

Thursday, 15 December 2022 12:10 (20 minutes)

Primary authors: VENTURA BARROSO, Ana (universite de Geneve); VENTURA BARROSO, Ana (Deutsches Elektronen-Synchrotron (DE)); VENTURA BARROSO, Ana (University of Barcelona (ES))

Presenters: VENTURA BARROSO, Ana (universite de Geneve); VENTURA BARROSO, Ana (Deutsches Elektronen-Synchrotron (DE)); VENTURA BARROSO, Ana (University of Barcelona (ES))

Session Classification: Progress in Cooling, Mechanics, and Powering of Pixel Detectors

Contribution ID: **162**　　　　　　　　　　　　　　　　　　　　　　　Type: **Talk**

A derivation of the electric field inside MAPS detectors from beam-test data and limited TCAD simulations

Thursday, 15 December 2022 13:50 (20 minutes)

Presenter:　SANTRA, Arka (Weizmann Institute of Science (IL))

Session Classification:　CMOS detectors

Contribution ID: **163**   Type: **not specified**

Current-voltage and Capacitance-voltage characteristics of Schottky diodes fabricated on n-type silicon for radiation hard detector

Primary author: OEBA, Duke (University of South Africa)

Presenter: OEBA, Duke (University of South Africa)

Session Classification: Poster session

Contribution ID: **164**   Type: **Talk**

Calibration of the Upgraded ALICE Inner Tracking System

Thursday, 15 December 2022 11:50 (20 minutes)

Primary author: TRIOLO, Andrea Sofia (University of Messina (IT), INFN Catania (IT))

Presenter: TRIOLO, Andrea Sofia (University of Messina (IT), INFN Catania (IT))

Session Classification: Progress in Cooling, Mechanics, and Powering of Pixel Detectors

Contribution ID: **165**   Type: **Talk**

ATLASPIX3 modules for experiments at electron-positron colliders

Thursday, 15 December 2022 15:50 (20 minutes)

Primary author: ZANZOTTERA, Riccardo (Università degli Studi e INFN Milano (IT))

Presenter: ZANZOTTERA, Riccardo (Università degli Studi e INFN Milano (IT))

Session Classification: CMOS detectors

Contribution ID: **166**

Type: **not specified**

TROPIX: A fast parametric tool reproducing the output of pixel detectors

Thursday, 15 December 2022 17:10 (20 minutes)

Primary author: Mr DI LUCA, Andrea (Universita degli Studi di Trento and INFN (IT))

Presenter: Mr DI LUCA, Andrea (Universita degli Studi di Trento and INFN (IT))

Session Classification: CMOS detectors

Contribution ID: **167**   Type: **Talk**

Monolithic Stitched Sensors (MOSS) Development for the ALICE Inner Tracking System Upgrade

Tuesday, 13 December 2022 10:10 (20 minutes)

Primary author: HONG, Geun Hee (Yonsei University (KR))

Presenter: HONG, Geun Hee (Yonsei University (KR))

Session Classification: Pixel system upgrades

Contribution ID: **168**   Type: **Poster**

Detector challenges of the strong-field QED experiment LUXE at the European XFEL

Wednesday, 14 December 2022 11:32 (1 minute)

Primary author: SANTRA, Arka (Weizmann Institute of Science (IL))

Presenter: SANTRA, Arka (Weizmann Institute of Science (IL))

Session Classification: Poster session

Contribution ID: **169**
Type: **Poster**

Silicon pixel-strip module characterisation for the CMS Outer Tracker Phase II upgrade

Primary author: OTARID, Younes (DESY)

Presenter: OTARID, Younes (DESY)

Session Classification: Poster session

Contribution ID: **170**   Type: **Poster**

First results of ATLASPix 3.1 telescope

Wednesday, 14 December 2022 11:34 (1 minute)

Primary authors: MENG, Lingxin (Lancaster University (GB)); ZANZOTTERA, Riccardo (Università degli Studi e INFN Milano (IT))

Presenters: MENG, Lingxin (Lancaster University (GB)); ZANZOTTERA, Riccardo (Università degli Studi e INFN Milano (IT))

Session Classification: Poster session

Contribution ID: **171**
Type: **Talk**

From vertex detectors to applications in ion detection and spectrometry: a glimpse of MAPS R&D in Strasbourg

Thursday, 15 December 2022 14:10 (20 minutes)

Primary author: BAUDOT, Jerome (IPHC - Strasbourg)

Presenter: BAUDOT, Jerome (IPHC - Strasbourg)

Session Classification: CMOS detectors

Contribution ID: **172**   Type: **Talk**

Hadron damage investigation of FBK and HPK low gain avalanche detectors

Tuesday, 13 December 2022 16:30 (20 minutes)

Primary author: SORENSON, Josef Daniel (University of New Mexico (US))

Presenter: SORENSON, Josef Daniel (University of New Mexico (US))

Session Classification: Radiation damage studies

Contribution ID: **173**   Type: **Poster**

Infrared curing of the spectroscopic response of a CdTe x-ray detector

Wednesday, 14 December 2022 11:33 (1 minute)

Primary author: DISTEFANO, Paolo (Politecnico di Milano)

Presenter: DISTEFANO, Paolo (Politecnico di Milano)

Session Classification: Poster session

Contribution ID: **174**   Type: **Talk**

MVTX: A MAPS Vertex Tracker for sPHENIX at RHIC

Thursday, 15 December 2022 10:10 (20 minutes)

Primary author: Dr KO, Ho-San (Lawrence Berkeley National Laboratory)

Presenter: Dr KO, Ho-San (Lawrence Berkeley National Laboratory)

Session Classification: Progress in Cooling, Mechanics, and Powering of Pixel Detectors

Contribution ID: **175**
Type: **Talk**

Alternative approach to front-end amplifiers design for timing measurement with silicon pixel detectors

Wednesday, 14 December 2022 08:50 (20 minutes)

Primary author: MENICHELLI, Mauro (Universita e INFN, Perugia (IT))

Presenter: MENICHELLI, Mauro (Universita e INFN, Perugia (IT))

Session Classification: Pixel electronics

Contribution ID: **176**

Type: **Poster**

Study of numerical algorithms used for calibration of Timepix time detectors working in ToT mode

Primary author: BROULÍM, Jan

Presenter: BROULÍM, Jan

Session Classification: Poster session

Contribution ID: **177**   Type: **Talk**

New DePFET technology

Friday, 16 December 2022 08:50 (20 minutes)

Primary author: PREDIKAKA, Mitja

Presenter: PREDIKAKA, Mitja

Session Classification: DEPFET

Contribution ID: **178**

Type: **Talk**

Simulated performance and calibration of CMS Phase-2 Upgrade Inner Tracker sensors

Tuesday, 13 December 2022 16:50 (20 minutes)

Primary author: VAMI, Tamas Almos (Johns Hopkins University (US))

Presenter: VAMI, Tamas Almos (Johns Hopkins University (US))

Session Classification: Radiation damage studies

Contribution ID: **179**   Type: **Talk**

AstropPix: Status and Outlook of Monolithic Active Pixel Sensors for Future Gamma-ray Telescopes

Monday, 12 December 2022 17:15 (20 minutes)

Primary author: Dr CAPUTO, Regina (GSFC/UMCP)

Presenter: Dr CAPUTO, Regina (GSFC/UMCP)

Session Classification: Space, Astronomy, Dark Matter

Contribution ID: **180**   Type: **Poster**

Vertically Aligned Carbon Nanotubes as Pixel Detector Substrate

Wednesday, 14 December 2022 11:35 (1 minute)

Primary author: Dr BOCCONE, Vittorio (DECTRIS Ltd.)

Presenter: Dr BOCCONE, Vittorio (DECTRIS Ltd.)

Session Classification: Poster session

Contribution ID: **181**　　　　　　　　　　　　　　　　　　　　　　　　　　　Type: **Talk**

Pixelated detectors for present and future light sources at Elettra

Tuesday, 13 December 2022 11:50 (20 minutes)

Primary author:　MENK, Ralf Hendrik (Elettra Sincrotrone Trieste)

Presenter:　MENK, Ralf Hendrik (Elettra Sincrotrone Trieste)

Session Classification:　X-ray systems

Contribution ID: **182**
Type: **Talk**

CMOS Pixelated Detectors for Multi-probe Radiography

Thursday, 15 December 2022 09:30 (20 minutes)

Primary author: Dr WANG, Zhehui (Jeph) (Los Alamos National Laboratory)

Presenter: Dr WANG, Zhehui (Jeph) (Los Alamos National Laboratory)

Session Classification: SOI

Contribution ID: **183**
Type: **Talk**

Pixel Sensor Characterization

Tuesday, 13 December 2022 17:30 (20 minutes)

Primary author: EBRAHIMI, Aliakbar (Paul Scherrer Institute (CH))

Co-author: MESCHINI, Marco (Universita e INFN, Firenze (IT))

Presenters: EBRAHIMI, Aliakbar (Paul Scherrer Institute (CH)); MESCHINI, Marco (Universita e INFN, Firenze (IT))

Session Classification: Radiation damage studies

Contribution ID: **184** Type: **Talk**

PIXEL 2024

Friday, 16 December 2022 11:10 (10 minutes)

Primary author: BAUDOT, Jerome (IPHC - Strasbourg)

Presenter: BAUDOT, Jerome (IPHC - Strasbourg)

Session Classification: Announcement of PIXEL 2024

Contribution ID: **185**   Type: **Talk**

Pixel Detector Development at SLAC

Friday, 16 December 2022 08:30 (20 minutes)

Primary authors: KENNEY, Chris (SLAC); KENNEY, Christopher John (SLAC National Accelerator Laboratory-Unknown-Unknown)

Presenters: KENNEY, Chris (SLAC); KENNEY, Christopher John (SLAC National Accelerator Laboratory-Unknown-Unknown)

Session Classification: DEPFET