#### 19th International Workshop on Radiation Imaging Detectors

#### **Report of Contributions**

Contribution ID: 1 Type: not specified

#### Particle range monitoring and verification methods in hadrontherapy

Tuesday 4 July 2017 10:00 (30 minutes)

Primary author: BISOGNI, Maria Giuseppina (University and INFN Pisa)

Presenter: BISOGNI, Maria Giuseppina (University and INFN Pisa)

Session Classification: Invited

Contribution ID: 3 Type: not specified

#### A compressed sensing X-ray camera with a multilayer architecture

Wednesday 5 July 2017 14:00 (1 minute)

Presenter: WANG, Zhehui (Los Alamos National Laboratory)

Session Classification: Poster Session II

Contribution ID: 5 Type: **not specified** 

## Development of a hemispherical RMC (H-RMC) system for imaging spatial distribution of radiation sources

Monday 3 July 2017 15:52 (1 minute)

**Presenter:** NA, Minho (Seoul National University of Science and Technology)

Session Classification: Poster Session I

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

#### Progress on 3D integration technology for Medipix3RX chip

Monday 3 July 2017 15:53 (1 minute)

**Presenter:** SARAJLIC, Milija (DESY)

Session Classification: Poster Session I

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

#### Characterising the High Energy Response of Timepix Detectors

Monday 3 July 2017 15:54 (1 minute)

**Presenter:** GEORGE, Stuart (University of Houston)

Session Classification: Poster Session I

Contribution ID: 8 Type: not specified

#### PantherPix3 hybrid pixel gamma ray detector for radio-therapeutic applications

Wednesday 5 July 2017 14:50 (1 minute)

**Presenter:** NEUE, Gordon (Czech Technical University in Prague)

Session Classification: Poster Session II

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

#### Development of Near-UV Silicon Photomultipliers at National Nanofab Center for PET/MR Application

Monday 3 July 2017 15:56 (1 minute)

**Presenter:** LIM, Kyung Taek (Korea Advanced Institute of Science and Technology)

Session Classification: Poster Session I

Contribution ID: 10 Type: not specified

#### Diamond Membranes as Position Sensitive X-ray Detector

Monday 3 July 2017 15:57 (1 minute)

**Presenter:** DESJARDINS, Kewin (Synchrotron SOLEIL)

Session Classification: Poster Session I

Contribution ID: 11 Type: not specified

#### Radiation hardness study of semi-insulating GaAs detectors against 5 MeV electrons

Monday 3 July 2017 15:58 (1 minute)

**Presenter:** SAGATOVA, Andrea (Slovak University of Technology in Bratislava)

Session Classification: Poster Session I

Contribution ID: 12 Type: not specified

## Compact 3D core-shell diode array for high performance particle detector & imaging sensor applications

Monday 3 July 2017 15:59 (1 minute)

**Presenter:** JIA, Guobin (Leibniz Institute of Photonic Technology)

Session Classification: Poster Session I

Contribution ID: 13 Type: not specified

### Surface damage characterization of FBK devices for High Luminosity LHC (HL-LHC) operations

Monday 3 July 2017 16:00 (1 minute)

Presenter: MOROZZI, Arianna (University of Perugia)

Session Classification: Poster Session I

Contribution ID: 14 Type: not specified

#### Dynamical and Steady State Photo-Hall Effect Deep Level Spectroscopy in High Resistive p-(CdMn)Te

Monday 3 July 2017 16:01 (1 minute)

**Presenter:** MUSIIENKO, Artem (Charles Univeristy)

Session Classification: Poster Session I

Contribution ID: 16 Type: not specified

## Quantitative evaluation method of the threshold adjustment performances of hybrid photon counting pixel detectors

Wednesday 5 July 2017 14:02 (1 minute)

**Presenter:** MEDJOUBI, Kadda (Synchrotron SOLEIL)

Session Classification: Poster Session II

Contribution ID: 17 Type: not specified

## Simulation of energy spectrum in GEM detector from an X-ray quantum

Wednesday 5 July 2017 14:03 (1 minute)

**Presenter:** MALINOWSKI, Karol (Institute of Plasma Physics and Laser Microfusion)

Session Classification: Poster Session II

Contribution ID: 18 Type: not specified

#### Image quality performances evaluation in ptychography imaging technique

Wednesday 5 July 2017 14:04 (1 minute)

**Presenter:** MEDJOUBI, Kadda (Synchrotron SOLEIL)

Session Classification: Poster Session II

Contribution ID: 19 Type: not specified

## Precise 3-D localization of double-photon emitting isotopes using advanced Compton imaging towards double photon emission CT (DPECT)

Wednesday 5 July 2017 14:05 (1 minute)

**Presenter:** YOSHIHARA, Yuri (The University of Tokyo)

Session Classification: Poster Session II

Contribution ID: 20 Type: not specified

#### Two-stage Polymeric Surface Passivation of (CdZn)Te Crystals

Monday 3 July 2017 16:02 (1 minute)

**Presenter:** VASYLCHENKO, Igor (Charles Univeristy)

Session Classification: Poster Session I

Contribution ID: 21 Type: not specified

#### Simulations of depleted CMOS sensors for high-radiation environments

Monday 3 July 2017 16:03 (1 minute)

Presenter: LIU, Jian (Shandong University)

Session Classification: Poster Session I

Contribution ID: 22 Type: not specified

#### First tests of Timepix detectors based on semi-insulating GaAs matrix of different pixel size

Monday 3 July 2017 16:04 (1 minute)

Presenter: KUBANDA, David (Institute of Electrical Engineering, Slovak Academy of Sciences)

Session Classification: Poster Session I

Contribution ID: 23 Type: not specified

## Imaging performance of Timepix detector based on semi-insulating GaAs

Monday 3 July 2017 16:05 (1 minute)

Presenter: ZATKO, Bohumir (Institute of Electrical Engineering, Slovak Academy of Sciences)

**Session Classification:** Poster Session I

Contribution ID: 24 Type: not specified

#### **Evaluation of Timepix detectors with thick CdTe** sensors for gamma-camera applications

Monday 3 July 2017 16:06 (1 minute)

**Presenter:** PROCZ, Simon (FMF Freiburg Materials Research Center)

Session Classification: Poster Session I

Contribution ID: 26 Type: not specified

#### Photo-Hall Effect Spectroscopy in High-Resistivity Cd(Zn)Te Single Crystals

Monday 3 July 2017 16:08 (1 minute)

**Presenter:** MORAVEC, Pavel (Charles University)

Session Classification: Poster Session I

Contribution ID: 27 Type: not specified

#### Photodiode area effect on X-ray CMOS APS Performance

Monday 3 July 2017 16:09 (1 minute)

Presenter: KIM, Giyoon (Korea Advanced Institute of Science and Technology)

**Session Classification:** Poster Session I

Contribution ID: 28 Type: not specified

#### Development of Avalanche Photodiode Array based on SOI Technology

Monday 3 July 2017 16:10 (1 minute)

**Presenter:** HAMASAKI, Ryutaro (SOKENDAI)

Session Classification: Poster Session I

Contribution ID: 29 Type: not specified

# Space charge generation in CdZnTe radiation detectors characterized by Laser-induced Transient Current Technique

Monday 3 July 2017 16:11 (1 minute)

Presenter: PIPEK, Jindrich (Charles University)

Session Classification: Poster Session I

Contribution ID: 30 Type: not specified

## GaAs:Cr X-ray sensors noise characteristics investigation by means of amplitude spectrum analysis

Monday 3 July 2017 16:12 (1 minute)

**Presenter:** LOZINSKAYA, Anastasiya (Tomsk State University)

Session Classification: Poster Session I

Contribution ID: 31 Type: not specified

## Influence of formation conditions of Pt Schottky barriers on the energy resolution of particle detectors based on VPE GaAs

Monday 3 July 2017 16:13 (1 minute)

**Presenter:** TRIFONOVA, Ekaterina (National University of Science and Technology MISIS)

Session Classification: Poster Session I

Contribution ID: 32 Type: not specified

#### Self-biased fast neutron detector based on VPE GaAs surface-barrier sensor with polyethylene converter

Monday 3 July 2017 16:14 (1 minute)

Presenter: BARYSHNIKOV, Fedor (National University of Science and Technology MISIS )

Session Classification: Poster Session I

Contribution ID: 33 Type: not specified

# Development of Stable and sensitivity Semiconductor Detector for NDT Radiation Dose Energy Detection Based on the Mixture material of PbI2 and PbO

Monday 3 July 2017 16:15 (1 minute)

**Presenter:** HEO, Ye Ji (Inje University)

Session Classification: Poster Session I

Contribution ID: 34 Type: not specified

#### Investigation of Gd and B4C neutron converters on Timepix3 detector

Monday 3 July 2017 16:16 (1 minute)

Presenter: KRAPOHL, David (Mid Sweden University)

Session Classification: Poster Session I

Contribution ID: 35 Type: not specified

#### Avalanche photodiodes based on GaAs/AlGaAs - the detectors for 4th generation light sources

Monday 3 July 2017 16:17 (1 minute)

**Presenter:** STEINHARTOVA, Tereza (Universita degli studi di Trieste)

Session Classification: Poster Session I

Contribution ID: 36 Type: not specified

#### Operation of 100 micron thick GEM in Krypton-CO2 mixtures

Monday 3 July 2017 16:18 (1 minute)

Presenter: AMARO, Fernando (University of Coimbra)

Session Classification: Poster Session I

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

# The stand-alone computation engine for the GEM detector based acquisition system for the WEST tokamak - the architecture and preliminary tests

Monday 3 July 2017 16:19 (1 minute)

Presenter: KRAWCZYK, Rafal (Warsaw University of Technology)

Session Classification: Poster Session I

Contribution ID: 38 Type: not specified

#### Development of the Electronic Personal Dosimeter System based on CsI(TI) and Si PIN detector

Monday 3 July 2017 16:20 (1 minute)

**Presenter:** PARK, Kyeongjin (Korea Advanced Institute of Science and Technology)

Session Classification: Poster Session I

Contribution ID: 39 Type: not specified

#### The new MYTHEN-III detector prototype

Monday 3 July 2017 16:21 (1 minute)

**Presenter:** ANDRAE, Marie (Paul Scherrer Institut)

Session Classification: Poster Session I

Contribution ID: 40 Type: not specified

## Ultra low noise STSCL logic standard cell library for nuclear detector front end readout ASICs

Monday 3 July 2017 16:22 (1 minute)

**Presenter:** NEUE, Gordon (Czech Technical University in Prague)

Session Classification: Poster Session I

Contribution ID: 41 Type: not specified

#### **Hybrid Pixel Detector for XRD and EDXRF**

Monday 3 July 2017 16:23 (1 minute)

**Presenter:** NYGARD, Einar (ENXENSE AS)

**Session Classification:** Poster Session I

Contribution ID: 42

Type: not specified

# Fast reset of the silicon microstrip and gas electron multiplier readout chain in the presence of leakage current

Monday 3 July 2017 16:24 (1 minute)

**Presenter:** ZUBRZYCKA, Weronika (AGH University of Science and Technology)

Session Classification: Poster Session I

Contribution ID: 43 Type: not specified

# A fully depleted CMOS pixel sensors for soft X-rays detection at synchrotron light source

Monday 3 July 2017 16:27 (1 minute)

Presenter: KACHEL, Maciej (Universite de Strasbourg)

Session Classification: Poster Session I

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

### Gotthard-II: A 4.5 MHz Silicon Microstrip Detector for the European X-ray Free-Electron Laser

Monday 3 July 2017 16:28 (1 minute)

Presenter: ZHANG, Jiaguo (Paul Scherrer Institut)

**Session Classification:** Poster Session I

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

### Compact and portable X-ray imager system using Medipix3RX

Monday 3 July 2017 16:29 (1 minute)

**Presenter:** GARCIA-NATHAN, Tomas Bartolome (The University of Manchester)

Session Classification: Poster Session I

Contribution ID: 46 Type: not specified

# Three Radiation Resistant Techniques against Single Event Effect for SAR-ADC Design

Monday 3 July 2017 16:26 (1 minute)

Three Radiation Resistant Techni  $\,\cdots$ 

**Presenter:** LEE, Yongseok (Korea University)

Session Classification: Poster Session I

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

### CSA-ADC Front-End ASIC for CPG Radiation Detector

Monday 3 July 2017 16:30 (1 minute)

**Presenter:** LEE, Yongseok (Korea University)

Session Classification: Poster Session I

Contribution ID: 48 Type: not specified

### Development of a technique based on DCDS for CCD readout

Wednesday 5 July 2017 14:49 (1 minute)

Presenter: CRUZ DE LA TORRE, Carlos (CIEMAT)

**Session Classification:** Poster Session II

Contribution ID: 49 Type: not specified

# Characterization of pixel sensor designed in 180 nm SOI CMOS technology

Monday 3 July 2017 16:31 (1 minute)

**Presenter:** BENKA, Tomas (Czech Technical University in Prague)

Session Classification: Poster Session I

Contribution ID: 50 Type: not specified

#### Design of an Analog Pixel's Front-End Active Feedback for VIPIC-Large Detector

Monday 3 July 2017 16:32 (1 minute)

**Presenter:** GRYBOS, Pawel (AGH University of Science and Technology)

Session Classification: Poster Session I

Contribution ID: 51 Type: not specified

#### Measurement of crosstalk in pixels for the Medipix 3

Monday 3 July 2017 16:33 (1 minute)

**Presenter:** THUNGSTROM, Goran (Mid Sweden University)

Session Classification: Poster Session I

Contribution ID: 52 Type: not specified

# Digital hit allocation algorithm for charge sharing compensation in semiconductor pixel detectors

Monday 3 July 2017 16:34 (1 minute)

**Presenter:** OTFINOWSKI, Piotr (AGH University of Science and Technology)

Session Classification: Poster Session I

Contribution ID: 53 Type: not specified

## Analytical Expressions for Noise and Crosstalk Voltages of the High Energy Silicon Particle Detector

Monday 3 July 2017 16:35 (1 minute)

Presenter: YADAV, Indu (Indian Institute of Technology Mandi)

Session Classification: Poster Session I

Contribution ID: 54 Type: not specified

#### Design of a Charge Sensitive Amplifier for Silicon Particle Detection in BCD 180 nm Technology

Monday 3 July 2017 16:36 (1 minute)

Presenter: YADAV, Indu (Indian Institute of Technology Mandi)

Session Classification: Poster Session I

Contribution ID: 55 Type: not specified

# High speed measurements system for time-resolved spectroscopy with synchrotron radiation

Monday 3 July 2017 16:25 (1 minute)

**Presenter:** KOZIOL, Anna (AGH University of Science and Technology)

Session Classification: Poster Session I

Contribution ID: 56 Type: not specified

# 2D GEM based imaging detector R&D from perspective of high intensity soft X-ray radiation

Wednesday 5 July 2017 14:06 (1 minute)

Presenter: CHERNYSHOVA, Maryna (Institute of Plasma Physics and Laser Microfusion)

Session Classification: Poster Session II

Contribution ID: 59 Type: not specified

### A scintillator geometry suitable for very small PET geometries

Wednesday 5 July 2017 14:09 (1 minute)

**Presenter:** GONZALEZ, Antonio (Institute for Instrumentation in Molecular Imaging, i3M)

Session Classification: Poster Session II

Contribution ID: 60 Type: not specified

#### Highly improved operation of BGO-PET blocks

Wednesday 5 July 2017 14:10 (1 minute)

Presenter: GONZALEZ-MONTORO, Andrea (Institute for Instrumentation in Molecular Imaging,

i3M)

Session Classification: Poster Session II

Contribution ID: 61 Type: not specified

#### Material Identification with Energy-resolved CT

Wednesday 5 July 2017 14:11 (1 minute)

**Presenter:** KANNO, Ikuo (Kyoto University)

Session Classification: Poster Session II

Contribution ID: 62 Type: not specified

# Evaluation of a Compton Imager using 3D position-sensitive LYSO scintillator for the investigation of nuclear materials: A Monte Carlo simulation

Wednesday 5 July 2017 14:12 (1 minute)

**Presenter:** LEE, Taewoong (Health Science Research Center)

Session Classification: Poster Session II

Contribution ID: 64 Type: **not specified** 

#### Application of Timepix3 Based CdTe Spectral Sensitive Photon Counting Detector for PET Imaging of Small Animals

Wednesday 5 July 2017 14:14 (1 minute)

**Presenter:** TURECEK, Daniel (Advacam s.r.o.)

Session Classification: Poster Session II

Contribution ID: 66 Type: not specified

# A study of energy classification using different pixel filtration in CMOS image sensor

Wednesday 5 July 2017 14:16 (1 minute)

**Presenter:** KIM, Giyoon (KAIST)

Session Classification: Poster Session II

Contribution ID: 68 Type: not specified

# Evaluation of Timepix3 based CdTe photon counting detector for fully spectroscopic small animal SPECT imaging

Wednesday 5 July 2017 14:18 (1 minute)

Presenter: TROJANOVA, Eliska (Advacam s.r.o.)

Session Classification: Poster Session II

Contribution ID: 69 Type: not specified

# First full dynamic range calibration of the JUNGFRAU photon detector

Wednesday 5 July 2017 14:19 (1 minute)

Presenter: REDFORD, Sophie (Paul Scherrer Institut)

Session Classification: Poster Session II

Contribution ID: 70 Type: not specified

# Photodetection characterisation of SiPM technologies for their application in scintillator based neutron detectors

Wednesday 5 July 2017 14:20 (1 minute)

Presenter: KUMAR, Shashank (Forschungszentrum Juelich GmbH)

**Session Classification:** Poster Session II

Contribution ID: 71 Type: **not specified** 

# On the double peak structure of avalanche photodiode response to monoenergetic x-rays at different temperatures and operation biasing

Wednesday 5 July 2017 14:21 (1 minute)

**Presenter:** MONTEIRO, Cristina (University of Coimbra)

Session Classification: Poster Session II

Contribution ID: **72** Type: **not specified** 

# Design and Fabrication of CLYC-based Rotational Modulation Collimator (RMC) System for Gamma-Ray/Neutron Dual-Particle Imager

Wednesday 5 July 2017 14:22 (1 minute)

**Presenter:** KIM, Hyun Suk (Seoul National University)

Session Classification: Poster Session II

Contribution ID: 73 Type: not specified

# Strip detector for the ATLAS detector upgrade for the High-Luminosity LHC

Wednesday 5 July 2017 14:23 (1 minute)

Presenter: VELOCE, Laurelle (University of Toronto)

Session Classification: Poster Session II

Contribution ID: 74 Type: **not specified** 

# Neutron Monitors of Various Geometrical Design for Detection of Nuclear Smuggling in Cargo Container

Wednesday 5 July 2017 14:24 (1 minute)

**Presenter:** LIM, Chang Hwy (Korea Research Institute of Ships and Ocean Engineering)

**Session Classification:** Poster Session II

Contribution ID: 77 Type: **not specified** 

# A study on the characteristics of indirect organic photodetector using p-type polycarbazole copolymer for X-ray Imaging

Wednesday 5 July 2017 14:28 (1 minute)

**Presenter:** KANG, Jungwon (Dankook University)

Session Classification: Poster Session II

Contribution ID: 78 Type: not specified

# Performance improvement of a filter-type "transXend" energy-resolving X-ray detector from the viewpoint of noise immunity

Wednesday 5 July 2017 14:26 (1 minute)

**Presenter:** TSAI, Tien-Hsiu (Kyoto University)

Session Classification: Poster Session II

Contribution ID: 79 Type: not specified

# The new Level-1 Topological Trigger for the ATLAS experiment at the Large Hadron Collider

Wednesday 5 July 2017 14:29 (1 minute)

**Presenter:** BAKKER, Pepijn (NIKHEF)

Session Classification: Poster Session II

Contribution ID: 80 Type: not specified

# A new unfolding method for energy-resolving transXend detector with K-edge filter

Wednesday 5 July 2017 14:30 (1 minute)

**Presenter:** HAMAGUCHI, Takumi (Kyoto University)

Session Classification: Poster Session II

Contribution ID: 81 Type: not specified

# Spatial energy-absorption distributions in a linear array of scintillators for megavoltage cargo-container inspection

Wednesday 5 July 2017 14:31 (1 minute)

**Presenter:** PARK, Jiwoong (Pusan National University)

Session Classification: Poster Session II

Contribution ID: 82 Type: not specified

# Comparative study of analytical and iterative digital tomosynthesis reconstructions for thin slab objects

Wednesday 5 July 2017 14:32 (1 minute)

Presenter: YUN, Jonghee (Pusan National University)

Session Classification: Poster Session II

Contribution ID: 83 Type: not specified

## Digital x-ray tomosynthesis with interpolated projection data for thin slab objects

Wednesday 5 July 2017 14:33 (1 minute)

Presenter: HA, Seungwoo (Pusan National University)

Session Classification: Poster Session II

Contribution ID: 84 Type: not specified

### Material identification CT using CdTe image sensor

Wednesday 5 July 2017 14:34 (1 minute)

**Presenter:** AOKI, Toru (Shizuoka University)

Session Classification: Poster Session II

Contribution ID: 85 Type: not specified

# Proton Therapy treatment monitoring with on-line PET: positron emitters evaluation and comparison with Monte Carlo predictions

Wednesday 5 July 2017 14:35 (1 minute)

Presenter: MURARO, Silvia (INFN Pisa)

Session Classification: Poster Session II

Contribution ID: **86** Type: **not specified** 

# Optimization of Far-Field Pinhole Collimator for High-Resolution Gamma-Ray Imaging in the High-Energy Radiation Environments

Wednesday 5 July 2017 14:36 (1 minute)

Presenter: LEE, Minju (Korea Advanced Institute of Science and Technology)

Session Classification: Poster Session II

Contribution ID: 87 Type: not specified

## Optimization of the equalization procedure for a single-photon counting CdTe detector used for CT

Wednesday 5 July 2017 14:37 (1 minute)

**Presenter:** DELOGU, Pasquale (Universita di Siena and INFN Pisa)

Session Classification: Poster Session II

Contribution ID: 88 Type: not specified

## Development of Fixed-type Cargo Inspection System for Three-dimensional Scanning

Wednesday 5 July 2017 14:38 (1 minute)

**Presenter:** LEE, Jeonghee (Korea Research Institute of Ships and Ocean Engineering)

Session Classification: Poster Session II

Contribution ID: 89 Type: not specified

# X-ray micro-CT and neutron CT as complementary imaging tools for nondestructive 3D imaging of rare silicified fossil plants

Wednesday 5 July 2017 14:39 (1 minute)

**Presenter:** KARCH, Jakub (Institute of Experimental and Applied Physics CTU in Prague)

Session Classification: Poster Session II

Contribution ID: 90 Type: not specified

# Pulse shape discrimination using EJ299-33 organic plastic scintillator for neutron dosimetry during proton beam therapy

Wednesday 5 July 2017 14:40 (1 minute)

**Presenter:** GUTIERREZ, Andrea (University College London)

Session Classification: Poster Session II

Contribution ID: 91 Type: not specified

## X-ray imaging with sub-micron resolution using large area photon counting detectors Timepix

Wednesday 5 July 2017 14:41 (1 minute)

**Presenter:** DUDAK, Jan (Institute of Experimental and Applied Physics CTU in Prague)

Session Classification: Poster Session II

Contribution ID: 92 Type: not specified

# Development of Photon-integrating based-on position sensitive sensor for identifying radioactive source of NDT apparatus in industrial fields

Wednesday 5 July 2017 14:42 (1 minute)

**Presenter:** KIM, Kyotae (Inje University)

Session Classification: Poster Session II

Contribution ID: 93 Type: not specified

# Monte Carlo based efficiency calibration of portable Cube527 CdZnTe micro spectrometer for gamma spectrometry of radioactive waste material

Wednesday 5 July 2017 14:43 (1 minute)

**Presenter:** RADÓCZ, Gábor (Budapest University of Technology and Economics)

Session Classification: Poster Session II

Contribution ID: 95 Type: not specified

## Radiation Imaging with a SOI-based Monolithic Pixel Chip

Wednesday 5 July 2017 14:45 (1 minute)

**Presenter:** KUKLOVA, Mahulena (Czech Technical University in Prague)

Session Classification: Poster Session II

Contribution ID: 98 Type: not specified

# Using the Medipix3 detector for direct electron imaging in the range 60kV to 200kV in electron microscopy

Wednesday 5 July 2017 14:48 (1 minute)

Presenter: DOS SANTOS, Joaquim (University of Coimbra)

Session Classification: Poster Session II

Contribution ID: 99 Type: not specified

## Development of a monolithic pixel detector with SOI technology for the ILC vertex detector

Monday 3 July 2017 09:00 (20 minutes)

**Presenter:** YAMADA, Miho (KEK)

**Session Classification:** Front-end and Readout

Contribution ID: 100 Type: not specified

## Development and Evaluation of an Event-driven SOI Pixel Detector for an X-ray Astronomy

Monday 3 July 2017 09:20 (20 minutes)

Presenter: TAKEDA, Ayaki (University of Miyazaki)

**Session Classification:** Front-end and Readout

Contribution ID: 101 Type: not specified

## MAPS sensor for radiation imaging designed in 180 nm SOI CMOS technology

Monday 3 July 2017 09:40 (20 minutes)

**Presenter:** HAVRANEK, Miroslav (Czech Technical University in Prague)

Session Classification: Front-end and Readout

Contribution ID: 102 Type: not specified

### 3-D Integrated 2 cm × 2 cm, 65k Pixel X-ray Detection Module with Through-Silicon Vias

Tuesday 4 July 2017 09:00 (20 minutes)

**Presenter:** KASINSKI, Krzysztof (AGH University of Science and Technology)

Session Classification: Front-end and Readout

Contribution ID: 103 Type: not specified

### WidePIX 3D: Very Compact Silicon Tracker with High Spatial Resolution and very Wide Field-of-view of 164°

Tuesday 4 July 2017 09:20 (20 minutes)

**Presenter:** JAKUBEK, Jan (Advacam s.r.o.)

Session Classification: Front-end and Readout

Contribution ID: 104 Type: not specified

### Particle Telescope with Timepix3 Pixel Detectors

Tuesday 4 July 2017 09:40 (20 minutes)

**Presenter:** BROULIM, Pavel (University of West Bohemia)

**Session Classification:** Front-end and Readout

Contribution ID: 105 Type: not specified

## Test results of the STS/MUCH-XYTER2, a self-triggered time and amplitude digitizing chip for Silicon Tracking System at CBM experiment

Wednesday 5 July 2017 09:00 (20 minutes)

**Presenter:** KASINSKI, Krzysztof (AGH University of Science and Technology)

**Session Classification:** Front-end and Readout

Contribution ID: 106 Type: not specified

## ARTROC –a readout ASIC for GEM-based full-field XRF imaging system

Wednesday 5 July 2017 09:20 (20 minutes)

**Presenter:** FIUTOWSKI, Tomasz (AGH University of Science and Technology)

Session Classification: Front-end and Readout

Contribution ID: 107 Type: not specified

#### Development and Characterization of a 4x4 mm<sup>2</sup> Pixel Neutron Scintillation Detector using Digital SiPMs

Wednesday 5 July 2017 09:40 (20 minutes)

**Presenter:** HERZKAMP, Matthias (Forschungszentrum Juelich GmbH)

Session Classification: Front-end and Readout

Contribution ID: 108 Type: not specified

### Tests of UFXC32k chip with CdTe pixel detector

Thursday 6 July 2017 09:00 (20 minutes)

**Presenter:** GRYBOS, Pawel (AGH University of Science and Technology)

Session Classification: Front-end and Readout

Contribution ID: 109 Type: not specified

## Katherine: Ethernet Embedded Readout Interface for Timepix3

Thursday 6 July 2017 09:20 (20 minutes)

Katherine: Ethernet Embedded R  $\,\cdots$ 

**Presenter:** BURIAN, Petr (University of West Bohemia)

**Session Classification:** Front-end and Readout

Contribution ID: 110 Type: not specified

# Development of depleted monolithic CMOS sensors with fast readout architecture for the ATLAS Inner Tracker upgrade

Thursday 6 July 2017 09:40 (20 minutes)

**Presenter:** WANG, Tianyang (University of Bonn)

**Session Classification:** Front-end and Readout

Contribution ID: 111 Type: not specified

## Thin n-in-p planar pixel developments for the ATLAS ITK

Thursday 6 July 2017 11:00 (20 minutes)

**Presenter:** SAVIC, Natascha (Max-Planck-Institute for Physics)

Session Classification: Sensors

Contribution ID: 112 Type: not specified

## CMOS pixel development for the ATLAS experiment at the HL-LHC

Thursday 6 July 2017 11:20 (20 minutes)

Presenter: GAUDIELLO, Andrea (INFN Genova)

Session Classification: Sensors

Contribution ID: 113 Type: not specified

### Performance study of double SOI image sensors

Thursday 6 July 2017 11:40 (20 minutes)

**Presenter:** MIYOSHI, Toshinobu (KEK)

Session Classification: Sensors

Contribution ID: 114 Type: not specified

### The test beam results of SOI pixel detector

Thursday 6 July 2017 12:00 (20 minutes)

**Presenter:** IDZIK, Marek (AGH University of Science and Technology)

Session Classification: Sensors

Contribution ID: 115 Type: not specified

## The Tynode: a new vacuum electron multiplier for ultra fast pixelised particle detectors

Thursday 6 July 2017 12:20 (20 minutes)

**Presenter:** DUARTE PINTO, Serge (Photonis)

Session Classification: Sensors

Contribution ID: 116 Type: not specified

# Efficient, fast 511-keV γ detection through Cherenkov radiation and ionization: the CaLIPSO detector for PET Imaging

Tuesday 4 July 2017 11:00 (20 minutes)

**Presenter:** YVON, Dominique (CEA Saclay)

Session Classification: Sensors

Contribution ID: 117 Type: not specified

## **Development of the Fast and Efficient Gamma Detector Using Cherenkov Light for TOF-PET**

Tuesday 4 July 2017 11:20 (20 minutes)

Presenter: CANOT, Clotilde (CEA Saclay)

Session Classification: Sensors

Contribution ID: 118 Type: not specified

### GaAs sensors with microstrip and pixelated detectors

Tuesday 4 July 2017 11:40 (20 minutes)

**Presenter:** RUAT, Marie (Paul Scherrer Institut)

Session Classification: Sensors

Contribution ID: 119 Type: not specified

## Characterisation of GaAs:Cr pixel sensors coupled to TIMEPIX chips in view of synchrotron applications

Tuesday 4 July 2017 12:00 (20 minutes)

**Presenter:** PONCHUT, Cyril (ESRF - The European Synchrotron)

Session Classification: Sensors

Contribution ID: 120 Type: not specified

# Spectral performance, characterisation and simulation of 5 mm thick CZT detectors hybridised to a Timepix ASIC

Tuesday 4 July 2017 12:20 (20 minutes)

**Presenter:** CHERLIN, Alexander (Kromek Group Plc)

Session Classification: Sensors

Contribution ID: 121 Type: not specified

# Nanoparticle aerosol as radiation detection medium in gaseous proportional counters: an alternative solution for neutron detection

Wednesday 5 July 2017 11:00 (20 minutes)

**Presenter:** DOS SANTOS, Joaquim (University of Coimbra)

Session Classification: Sensors

Contribution ID: 122 Type: not specified

### Characterisation of a neutron diffraction detector prototype based on the Trench-MWPC technology

Wednesday 5 July 2017 11:20 (20 minutes)

Presenter: MARCHAL, Julien (Institut Laue Langevin)

Session Classification: Sensors

Contribution ID: 123 Type: not specified

## Electrical characterization of FBK small-pitch 3D sensors after $\gamma$ -ray, neutron and proton irradiations

Wednesday 5 July 2017 11:40 (20 minutes)

**Presenter:** DALLA BETTA, Gian-Franco (TIFPA INFN)

Session Classification: Sensors

Contribution ID: 124 Type: not specified

# Comparison of Experimental Results of a Quad-CZT Array Detector and Nal(Tl), LaBr3(Ce), HM-5, HPGe for Nuclear Safeguards Applications

Wednesday 5 July 2017 12:00 (20 minutes)

**Presenter:** KWAK, Sung-Woo (Korea Institute of Nuclear Non-proliferation and Control)

Session Classification: Sensors

Contribution ID: 125 Type: not specified

## Silicon Pixel Sensor Processing on 8"High Resistivity Wafers

Wednesday 5 July 2017 12:20 (20 minutes)

**Presenter:** KALLIOPUSKA, Juha (Advacam Oy)

Session Classification: Sensors

Contribution ID: 126 Type: not specified

## Development of a compact Compton camera for 3D image reconstruction of radioactive contaminations

Tuesday 4 July 2017 16:10 (20 minutes)

**Presenter:** SATO, Yuki (Japan Atomic Energy Agency)

Session Classification: Applications

Contribution ID: 127 Type: not specified

#### Neutron imaging and tomography with MCPs

Tuesday 4 July 2017 17:30 (20 minutes)

**Presenter:** DUARTE PINTO, Serge (Photonis)

Session Classification: Applications

Contribution ID: 128 Type: not specified

# A Compton Camera for prompt gamma imaging during proton beam therapy for range and dose verification

Tuesday 4 July 2017 16:30 (20 minutes)

**Presenter:** GUTIERREZ, Andrea (University College London)

Session Classification: Applications

Contribution ID: 129 Type: not specified

## Characterization of a tracker for secondary fast and ultrafast neutrons: MONDO experiment

Tuesday 4 July 2017 16:50 (20 minutes)

**Presenter:** TRAINI, Giacomo (Universita degli studi di Roma La Sapienza)

Session Classification: Applications

Contribution ID: 130 Type: not specified

### The 3D CdZnTe drift strip detector developed at DTU Space

Tuesday 4 July 2017 17:10 (20 minutes)

**Presenter:** KUVVETLI, Irfan (DTU Space, Technical University of Denmark )

Session Classification: Applications

Contribution ID: 131 Type: not specified

## Design of the new ATLAS Inner Tracker for the High Luminosity LHC era

Monday 3 July 2017 14:00 (20 minutes)

**Presenter:** VICKEY, Trevor (Sheffield University)

Session Classification: Applications

Contribution ID: 132 Type: not specified

### Module and electronics developments for the ATLAS ITK pixel system

Monday 3 July 2017 14:20 (20 minutes)

Presenter: MUNOZ SANCHEZ, Francisca (University of Manchester)

Session Classification: Applications

Contribution ID: 133 Type: not specified

## Performance of the modules for the CMS phase I pixel detector upgrade

Monday 3 July 2017 14:40 (20 minutes)

**Presenter:** MEINHARD, Maren Tabea (Eidgenoessische Technische Hochschule Zuerich)

Session Classification: Applications

Contribution ID: 134 Type: not specified

## Performance of the UFXC32k photon counting detector for synchrotron radiation applications

Tuesday 4 July 2017 14:00 (20 minutes)

Presenter: KOZIOL, Anna (AGH University of Science and Technology)

Session Classification: Applications

Contribution ID: 135 Type: not specified

# Directional and position sensitive detection of energetic electrons with high-angular resolution and wide field-of-view WidePIX 3D Timepix telescope

Tuesday 4 July 2017 14:20 (20 minutes)

Presenter: GRANJA, Carlos (Nuclear Physics Institute, Czech Academia of Science)

Session Classification: Applications

Contribution ID: 137 Type: not specified

# DSSC for the European XFEL: first results on the 128 x 512 prototype system and roadmap to the megapixel camera

Tuesday 4 July 2017 14:40 (20 minutes)

**Presenter:** PORRO, Matteo (European X-ray Free-Electron Laser Facility GmbH)

Session Classification: Applications

Contribution ID: 138 Type: not specified

#### Status and outlook of the AGIPD detectors at the EuXFEL

Tuesday 4 July 2017 15:00 (20 minutes)

Presenter: ALLAHGHOLI, Aschkan (DESY)

Session Classification: Applications

Contribution ID: 139 Type: not specified

#### **Sealed MPGDs for X-ray Imaging Applications**

Monday 3 July 2017 11:00 (20 minutes)

**Presenter:** CARRAMATE, Lara (University of Aveiro)

Session Classification: Applications

Contribution ID: 140 Type: not specified

#### Energy dispersive imaging with MÖNCH

Monday 3 July 2017 11:20 (20 minutes)

**Presenter:** RAMILLI, Marco (Paul Scherrer Institut)

Session Classification: Applications

Contribution ID: 141 Type: not specified

## Precision Scan-Imaging for Paperboard Quality Inspection utilizing X-ray Fluorescence

Monday 3 July 2017 11:40 (20 minutes)

Presenter: NORLIN, Börje (Mid Sweden University)

Session Classification: Applications

Contribution ID: 142 Type: not specified

## Pushing the Limits of Position Resolution with pnCCDs

Monday 3 July 2017 12:00 (20 minutes)

**Presenter:** HOLL, Peter (PNSensor GmbH)

**Session Classification:** Applications

Contribution ID: 143 Type: not specified

# Applications of a pnCCD Detector Coupled to Columnar Structure Csl(Tl) Scintillator System in Ultra High Energy X-ray Laue Diffraction

Tuesday 4 July 2017 17:50 (20 minutes)

Presenter: SHOKR, Mohammad (University of Siegen)

Session Classification: Applications

Contribution ID: 144 Type: **not specified** 

# Detector requirements for single mask edge illumination X-ray phase contrast imaging applications

Monday 3 July 2017 15:00 (20 minutes)

Presenter: KALLON, Gibril (University College London)

**Session Classification:** Imaging Theory

Contribution ID: 145 Type: not specified

#### The LHCb Vertex Locator Upgrade

Tuesday 4 July 2017 15:20 (20 minutes)

**Presenter:** SZUMLAK, Tomasz (AGH University of Science and Technology)

Session Classification: Applications

Contribution ID: 146 Type: not specified

## The JUNGFRAU detector and its first applications at FELs and synchrotron light sources

Wednesday 5 July 2017 10:00 (30 minutes)

**Presenter:** MOZZANICA, Aldo (Paul Scherrer Institut)

Session Classification: Invited

Contribution ID: 147 Type: not specified

### Fabrication and testing of large area 3D diamond detectors

Thursday 6 July 2017 10:00 (30 minutes)

Presenter: HAUGHTON, Iain (University of Manchester)

Session Classification: Invited

Contribution ID: 148 Type: not specified

## Challenges and solutions in X-ray detector design for laboratory based instrumentation

Monday 3 July 2017 10:00 (30 minutes)

**Presenter:** GERNDT, Ekkehard (Bruker AXS GmbH)

Session Classification: Invited

Contribution ID: 149 Type: not specified

#### Workshop summary and closing

Thursday 6 July 2017 12:40 (20 minutes)

**Presenter:** FRÖJDH, Christer (Mid Sweden University)

Session Classification: Summary