

Program overview

| | | | | |
|------------|-----|-------------|--------------|--|
| 1 | Sun | 17:00–21:00 | Foyer | Registration and Welcome Drink |
| 2.1–2.4 | Mon | 9:00–10:40 | Lecture Hall | Opening Session and Detector Materials I |
| 3.1–3.4 | Mon | 11:00–12:40 | Lecture Hall | Applications I |
| 4.1–4.5 | Mon | 14:00–16:00 | Lecture Hall | High Resolution Imaging |
| 5.1–5.4 | Mon | 16:20–18:00 | Lecture Hall | Device Processing and Front-End Electronics |
| 6 | Mon | 18:00–23:00 | | Social Event |
| 7.1–7.4 | Tue | 9:00–10:40 | Lecture Hall | Gamma Ray Imaging |
| 8.1–8.4 | Tue | 11:00–12:40 | Lecture Hall | Detectors and Applications |
| 9.1–9.3 | Tue | 14:00–16:20 | Poster Hall | Poster - Imaging Theory and Processing |
| 10.1–10.17 | Tue | 14:00–16:20 | Poster Hall | Poster - Applications |
| 11.1–11.16 | Tue | 14:00–16:20 | Poster Hall | Poster - Detector Devices and Concepts |
| 12.1–12.7 | Tue | 14:00–16:20 | Poster Hall | Poster - Front-End Electronics, Readout and Interconnect Technologies |
| 13.1–13.17 | Tue | 14:00–16:20 | Poster Hall | Poster - Detector Materials |
| 14.1–14.4 | Tue | 16:20–18:00 | Lecture Hall | Applications II |
| 15.1–15.4 | Wed | 9:00–10:40 | Lecture Hall | Applications of spectroscopic Detectors |
| 16.1–16.4 | Wed | 11:00–12:40 | Lecture Hall | Active Pixel Detectors |
| 17.1–17.3 | Wed | 14:00–15:00 | Lecture Hall | Detector Materials II |
| 18 | Wed | 15:00–23:00 | | Social Event |
| 19.1–19.4 | Thu | 9:00–10:40 | Lecture Hall | Simulations and Data Analysis |
| 20.1–20.4 | Thu | 11:00–12:40 | Lecture Hall | Medical Imaging |
| 21 | Thu | 12:40–13:00 | Lecture Hall | Summary and Closing |

Session 1: Registration and Welcome Drink

Sunday, 17:00–21:00

Foyer

Registration and Welcome Drink**Session 2: Opening Session and Detector Materials I**

Monday, 9:00–10:40

Lecture Hall

Welcome by the Organizers

- 9:10 2.1 **30 years of innovation in industrial silicon detectors: Contributions by Paul Burger** — ERIK H. M. HEIJNE
- 9:20 2.2 **Industrial silicon detectors, advancements in planar technology** — PAUL BURGER
- 10:00 2.3 **GaAs Medipix 2 hybrid pixel detector** — PASI KOSTAMO
- 10:20 2.4 **Comparison of charge collection efficiency of segmented silicon detectors made with FZ and MCZ p-type silicon substrates** — GIANLUIGI CASSE

Session 3: Applications I

Monday, 11:00–12:40

Lecture Hall

- 11:00 3.1 **X-Ray Based Methods for Nondestructive Testing and Material Characterization** — RANDOLF HANKE
- 11:40 3.2 **Material Resolved X-ray Imaging using Spectrum Reconstruction with Medipix2** — MARKUS FIRSCHING

- 12:00 3.3 Radiographic observation of microstructure displacement field — DANIEL VAVRIK
 12:20 3.4 A silicon carbide microstrip detector for radiation spectroscopic imaging — GIUSEPPE BERTUCCIO

Session 4: High Resolution Imaging

Monday, 14:00–16:00

Lecture Hall

- 14:00 4.1 The use of 2D pixel detectors in micro- and nano-CT applications — MANUEL DIERICK
 14:40 4.2 The LHCb RICH photon detector system — KENNETH WYLLIE
 15:00 4.3 High resolution application of YAG:Ce and LuAG:Ce imaging detectors with CCD X-ray camera — JAN TOUS
 15:20 4.4 Characterisation of lanthanides-doped LSO epitaxial layers for high-resolution X-ray imaging applications — PAUL-ANTOINE DOUISSARD
 15:40 4.5 Microcolumnar ZnSe:Te Scintillator for High Resolution Imaging — VIVEK NAGARKAR

Session 5: Device Processing and Front-End Electronics

Monday, 16:20–18:00

Lecture Hall

- 16:20 5.1 3D integration technologies for imaging applications — PIET DE MOOR
 17:00 5.2 Development of thin pixel sensors and a novel interconnection technology for the SLHC — RICHARD NISIUS
 17:20 5.3 Rework of Flip Chip Bonded Radiation Pixel Detectors — SAMI VÄHÄNEN
 17:40 5.4 Spectral characterisation and noise performance of Vanilla - an Active Pixel Sensor — ANDREW BLUE

Session 6: Social Event

Monday, 18:00–23:00

Beer Garden

Session 7: Gamma Ray Imaging

Tuesday, 9:00–10:40

Lecture Hall

- 9:00 7.1 Construction and ground tests of the Large Area Telescope of the GLAST space mission — ALESSANDRO BREZ
 9:40 7.2 Performance of the gamma-ray camera based on scintillator array and PSPMT with an ASIC readout system — KAZUKI UENO
 10:00 7.3 Real-Time Data Acquisition and Maximum-Likelihood Estimation for a New Generation of High-Resolution Gamma Cameras — BRIAN W. MILLER
 10:20 7.4 Investigation of pixellated TlBr gamma-ray spectrometers with the depth sensing technique — KEITARO HITOMI

Session 8: Detectors and Applications

Tuesday, 11:00–12:40

Lecture Hall

- 11:00 8.1 **Signal transport in Computed Tomography detectors** — BJÖRN HEISMAN
- 11:40 8.2 **Imaging of biological samples with pixel detectors** — CHIARA CAPPELLINI
- 12:00 8.3 **Study of the charge sharing in silicon pixel detector by means of alpha particles interacting with a Medipix2 device** — STANISLAV POSPISIL
- 12:20 8.4 **Characterization of an epitaxial GaAs/Medipix2 detector using fluorescence photons** — LUKAS TLUSTOS

Session 9: Poster - Imaging Theory and Processing

Tuesday, 14:00–16:20

Poster Hall

- 14:00 9.1 **The detective quantum efficiency (DQE) for evaluating the performance of a small gamma camera system with a uniformly redundant array (URA) collimator** — HOSANG JEON
- 14:00 9.2 **Pattern recognition of tracks induced by individual quanta of ionizing radiation in Medipix2 silicon detector** — TOMAS HOLY
- 14:00 9.3 **FPGA implementation of 2D signals encoder/decoder using QMF based dyadic DWT fast wavelet mallat's algorithm: application to radioisotopes images and neutron tomography projections** — GUESSOUM ABDERREZAK

Session 10: Poster - Applications

Tuesday, 14:00–16:20

Poster Hall

- 14:00 10.1 **Gallium Arsenide detectors in medicine and non-destructive testing** — MIKHAIL POLKOVNIKOV
- 14:00 10.2 **Characterisation and comparison of direct and indirect converting x-ray detectors for NDT (Non Destructive Testing) in low energy and high-resolution applications.** — NORMAN UHLMANN
- 14:00 10.3 **Realisation of a Computed Tomography setup to achieve resolutions below 1 micron.** — MICHAEL SALAMON
- 14:00 10.4 **Comparison of different methods for determining the size of a focal spot of microfocus x-ray tubes, according to the EN 12543-5, using DDA's.** — MICHAEL SALAMON
- 14:00 10.5 **Optimum design of detector structure and arrangement for NMDS** — KWANG HYUN KIM
- 14:00 10.6 **signal and noise performance of large area pin photodiode and charge sensitive preamplifier for gamma radiography** — KWANG HYUN KIM
- 14:00 10.7 **Survey of historical monuments and art objects using silicon detectors** — TOMÁŠ TROJEK
- 14:00 10.8 **X-ray fluorescence imaging with pixel detector** — VLADIMIR TICHY
- 14:00 10.9 **Detection of Fast Neutrons with the Medipix2 Pixel Detector** — JOSEF UHER
- 14:00 10.10 **Energy calibration measurements of Medipix2** — CELINE LEBEL
- 14:00 10.11 **The CDF RUN II Silicon Detector: Aging Studies** — IGNACIO REDONDO ON BEHALF OF THE CDF COLLABORATION
- 14:00 10.12 **The ATLAS Beam Conditions Monitor** — HARRIS KAGAN
- 14:00 10.13 **The LHCb VERTex LOCator (VELO)** — PAULA COLLINS

- 14:00 10.14 **Optimal geometrical configuration of a double-scattering compton camera for maximum imaging resolution and sensitivity** — HEE SEO
- 14:00 10.15 **Continuous DOI resolution measurement and error analysis with LYSO and two APDs** — CHAEHUN LEE
- 14:00 10.16 **Study of DOI Resolution with Solide-State Photomultipliers** — HYUNDUK KIM
- 14:00 10.17 **Performance evaluation of a table-top compton camera for various detector parameters** — SE HYUNG LEE

Session 11: Poster - Detector Devices and Concepts

Tuesday, 14:00–16:20

Poster Hall

- 14:00 11.1 **Novel Neutral Particle Analyser for JET Fusion Research** — JUHA KALLIOPUSKA
- 14:00 11.2 **The study of digital radiation detector based on plasma display panel** — CHO SUNGHO
- 14:00 11.3 **GaAs Detectors with LiF Layer for Detection of Thermal Neutrons** — ANDREA SAGATOVA-PERDOCHOVA
- 14:00 11.4 **On the detection performance of semi-insulating GaAs detectors coupled to multichannel ASIC DX64 for X-ray imaging applications** — BOHUMÍR ZAŤKO
- 14:00 11.5 **Role of new ohmic electrode metallizations in detection performance of bulk semi-insulating GaAs imaging radiation detectors** — BOHUMÍR ZAŤKO
- 14:00 11.6 **Fast polycrystalline CdTe detectors for Bunch-by-bunch luminosity monitoring in the LHC** — ANDREA BRAMBILLA
- 14:00 11.7 **Space Charge Effects on Gas Gain in Non-Uniform Field Argon-Based Detectors** — NILGUN DEMIR
- 14:00 11.8 **X-ray response properties of flat panel gas detector** — MINSEOK YUN
- 14:00 11.9 **The effect of gas pressure on the performance of a MSPC detector** — OKLA AL-HORAYESS
- 14:00 11.10 **Electro-optic Properties of X-ray Detector using Phosphor-Light Modulator** — SANGSIK KANG
- 14:00 11.11 **Photo-readout choices for a large lead-scintillator-sandwich detector array** — ATHANASIOS HATZIKOUTELIS
- 14:00 11.12 **Performance studies of a monolithic scintillator-CMOS image sensor for x-ray application** — BO KYUNG CHA
- 14:00 11.13 **Construction and Temporal Property of a-Se coupled liquid crystal** — BYUNGYUL CHA
- 14:00 11.14 **Measurement of the effective inter-strip capacitance of p-type 3D stc strip detectors with different strip isolation techniques using an IR laser set-up and LHC front-end electronics** — SIMON ECKERT
- 14:00 11.15 **Development of a multifunctional particle spectrometer to support future planetary exploration** — ERIK MADDOX
- 14:00 11.16 **ingle Photon Imaging at ultra-high resolution** — R. BELLAZZINI

Session 12: Poster - Front-End Electronics, Readout and Interconnect Technologies

Tuesday, 14:00–16:20

Poster Hall

- 14:00 12.1 **The RELAXd project: development of four-side tilable photon counting imagers** — ZDENEK VYKYDAL

- 14:00 12.2 **Preliminary results of the complete ppc readout system for the Medipix2 quad** — ROBERTO MARZEDDU
- 14:00 12.3 **Signal processor controlled USB2.0 interface for Medipix2 detector** — MICHAL PLATKEVIC
- 14:00 12.4 **Bandwidths of micro twisted-pair cables and fusion spliced SIMM-GRIN fiber and radiation hardness of PIN/VCSEL arrays** — KK GAN
- 14:00 12.5 **An MT-Style Optical Package for Optical Data Transmission** — KK GAN
- 14:00 12.6 **Optimization of CMOS Active Pixels with High Signal-to-Noise Ratio for High Resolution X-ray Imaging** — YOUNG SOO KIM
- 14:00 12.7 **Simulation of the charge transfer inefficiency of column-parallel CCDs.** — DZMITRY MANEUSKI

Session 13: Poster - Detector Materials

Tuesday, 14:00–16:20

Poster Hall

- 14:00 13.1 **Temporal performance of various semiconductor detectors for X-ray fluorescence imaging** — CHIWON CHI
- 14:00 13.2 **Annealing studies of a silicon microstrip detector irradiated at high neutron fluences** — MERCEDES MIÑANO
- 14:00 13.3 **Lithium Drifted Silicon Detectors for Harsh Radiation Environments** — JAMES GRANT
- 14:00 13.4 **Influence of high energy X-ray exposure on mechanical properties of SiO_x - containing amorphous DLC structures** — DIANA ADLIENE
- 14:00 13.5 **Synchrotron X-ray topography and electrical characterization of epitaxial GaAs p-i-n structures** — PASI KOSTAMO
- 14:00 13.6 **Performance of semi-insulating GaAs radiation detectors: Role of electrodes metallizations** — FRANTIŠEK DUBECKÝ
- 14:00 13.7 **Deep level photoluminescence in semiinsulating CdTe(In) and CdTe(Sn)** — HASSAN ELHADIDY
- 14:00 13.8 **Correlation of CdTe:In properties with annealing at Cd/Te pressures** — EDUARD BELAS
- 14:00 13.9 **Surface Leakage Current Control with Heterojunction-type Passivation in Semi-insulating CdZnTe Material** — SHINHANG CHO
- 14:00 13.10 **X-ray Sensitivity of Semi-insulating Polycrystalline CdZnTe Thick Films** — JONGHEE SUH
- 14:00 13.11 **Improvements on Leakage Current of Mercuric Iodide X-ray Detector** — SUNGHO CHO
- 14:00 13.12 **The Evaluation of Semiconductor Performance of Mercuric Iodide Film Fabricated with new Particle In Binder Method for Large Area X-ray Imaging** — CHIWON CHOI
- 14:00 13.13 **Annealing Effects on X-ray Detection Properties of Polycrystalline PbO film** — KANG SANG SIK
- 14:00 13.14 **Annealing effect on x-ray detection properties of polycrystalline PbO film for x-ray imaging** — CHUL KWUN
- 14:00 13.15 **Improved process for the TlBr single crystal detector** — VASILIJ KOZLOV
- 14:00 13.16 **Microstructures, microhardnes and spectrometrical performance of TlBr detector crysrls.** — MIHAIL SHOROHOV
- 14:00 13.17 **Optical Characteristics of TlBr Crystals** — NICKOLAI SMIRNOV

Session 14: Applications II

Tuesday, 16:20–18:00

Lecture Hall

- 16:20 14.1 **Detectors for neutron imaging** — BURKHARD SCHILLINGER
- 17:00 14.2 **Direct detection devices for single particle electron cryo-microscopy** — A.R. FARUQI
- 17:20 14.3 **Thin silicon strip devices for direct electron detection in transmission electron microscopy** — GRIGORE MOLDOVAN
- 17:40 14.4 **A prototype of radiation imaging detector using silicon strip sensors** — HWANBAE PARK

Session 15: Applications of spectroscopic Detectors

Wednesday, 9:00–10:40

Lecture Hall

- 9:00 15.1 **Bio-medical X-ray Imaging with Spectroscopic Pixel Detectors** — ANTHONY BUTLER
- 9:40 15.2 **Recent advances in GridPix detectors** — MAXIMILIEN CHEFDEVILLE
- 10:00 15.3 **High resolution UV, soft X-ray and neutron imaging with Timepix CMOS read-out** — ANTON TREMSIN
- 10:20 15.4 **Single Quantum Counting Pixel Detectors for Imaging with Heavy Charged Particles and Electrons** — JAN JAKUBEK

Session 16: Active Pixel Detectors

Wednesday, 11:00–12:40

Lecture Hall

- 11:00 16.1 **Silicon X-ray Detectors and Data Acquisition for the LCLS Science Instruments** — NIELS VAN BAKEL
- 11:40 16.2 **XPAD3: a fast hybrid pixel readout chip for X-Ray synchrotron facilities** — PATRICK PANGAUD
- 12:00 16.3 **Measurement of the spatial resolution limitation of single photon counting detectors** — ANNA BERGAMASCHI
- 12:20 16.4 **Front-End Counting Mode Electronics** — DANIELLE MORAES

Session 17: Detector Materials II

Wednesday, 14:00–15:00

Lecture Hall

- 14:00 17.1 **Crystal growth of detector grade (Cd,Zn)Te crystals** — MICHAEL FIEDERLE
- 14:20 17.2 **Diffusion of charged native defects in semiconductors: The case of CdTe** — ROMAN GRILL
- 14:40 17.3 **Radiation Hard Diamond Pixel Detectors** — HARRIS KAGAN

Session 18: Social Event

Wednesday, 15:00–23:00

Nuremberg and Conference Dinner

Session 19: Simulations and Data Analysis

Thursday, 9:00–10:40

Lecture Hall

- 9:00 19.1 Monte Carlo Simulations in Medical Imaging — JÜRGEN GIERSCH
- 9:40 19.2 Exploring the performance of μ SR position-sensitive detectors through numerical simulations — TONI SHIROKA
- 10:00 19.3 Correction of the charge sharing in photon-counting pixel detectors data — CYRIL PONCHUT
- 10:20 19.4 Measurement and detailed simulation of the Modulation Transfer Function (MTF) of the Medipix2-Detector — PETER BARTL

Session 20: Medical Imaging

Thursday, 11:00–12:40

Lecture Hall

- 11:00 20.1 PET imaging for treatment verification of ion therapy — KATIA PARODI
- 11:40 20.2 Challenges for pixelated scintillators in medical X-ray imaging — MATTHIAS SIMON
- 12:00 20.3 Preliminary results of an in-beam PET prototype for proton therapy — VALERIA ROSSO
- 12:20 20.4 Use of GafchromicTM films in heavy ion therapy — MARIA MARTISIKOVA

Session 21: Summary and Closing

Thursday, 12:40–13:00

Lecture Hall

Summary Talk by Valeria Rosso, Announcements, Closing