

Tenth Intl. Workshop on Pixel Detectors for Particles and Imaging

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Book of Abstracts

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Fast timing / 59**10-ps timing with 3D-trench silicon sensors at extreme rates****Author:** Adriano Lai¹¹ *Universita e INFN, Cagliari (IT)***Corresponding Author:** adriano.lai@ca.infn.it**Fast timing / 63****A High Granularity Timing Detector for the ATLAS Phase-II Upgrade****Author:** Afonso Soares Canas Ferreira¹¹ *CERN***Corresponding Author:** afonso.soares.canas.ferreira@cern.ch**CMOS detectors / 162****A derivation of the electric field inside MAPS detectors from beam-test data and limited TCAD simulations****Corresponding Author:** santra.arka@gmail.com**Data transmission / 38****A readout chain from module to LpGBT****Fast timing / 156****AC-coupled Low Gain Avalanche Diodes for 4D tracking: impact of electrode geometry on charge sharing****Author:** Jennifer Ott¹¹ *University of California,Santa Cruz (US)***Corresponding Author:** jeott@ucsc.edu**Poster session / 146****ATLAS ITk pixel module bump bond stress analysis**

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Medical Imaging, CCDs, Detectors for IR, and Direct electron detection / 142

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Progress in Cooling, Mechanics, and Powering of Pixel Detectors / 164

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Progress in Cooling, Mechanics, and Powering of Pixel Detectors / 149

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Medical Imaging, CCDs, Detectors for IR, and Direct electron detection / 57

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First results of the prototype EDET DH80k system

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CMOS detectors / 171

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

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Hadron damage investigation of FBK and HPK low gain avalanche detectors

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Medical Imaging, CCDs, Detectors for IR, and Direct electron detection / 55

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Pixel electronics / 36

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Progress in Cooling, Mechanics, and Powering of Pixel Detectors / 47

LHCb module assembly

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Pixel electronics / 137

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Fast timing / 160

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

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Other scientific applications / 29

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Poster session / 126**Multi Module 56,000 fps Photon Counting Pixel Array Detector System****Author:** Yasukazu Nakaye¹¹ Rigaku Americas Corporation**Corresponding Author:** yasukazu.nakaye@rigaku.com**DEPFET / 177****New DePFET technology****Author:** Mitja Predikaka^{None}**Corresponding Author:** mip@hll.mpg.de**Pixel system performance / 11****Novel Detectors for Tracking and Timing****Author:** Frank Hartmann¹¹ KIT - Karlsruhe Institute of Technology (DE)**Corresponding Author:** frank.hartmann@cern.ch**CMOS detectors / 131****Optimization of a 65 nm CMOS imaging technology for monolithic sensors for high energy physics****Author:** Walter Snoeys¹¹ CERN**Corresponding Author:** walter.snoeys@cern.ch**Progress in Cooling, Mechanics, and Powering of Pixel Detectors / 153****Overview on current state of the art pixel mechanics for the upgrade tracking detectors at the ATLAS and CMS experiments****Author:** Owen Shea¹¹ The University of Edinburgh (GB)

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X-ray systems / 25**Pixel detector development at SLAC****Author:** Chris Kenney¹¹ *SLAC***Corresponding Author:** kenney@slac.stanford.edu**CMOS detectors / 54****Pixel detector developments for future lepton colliders****Author:** Dominik Dannheim¹¹ *CERN***Corresponding Author:** dominik.dannheim@cern.ch**Pixel electronics / 34****Pixel detectors with built-in signal processing and bandwidth-efficient data transmission****Author:** Grzegorz Deptuch¹¹ *Brookhaven National Laboratory (US)***Corresponding Author:** grzegorz.wladyslaw.deptuch@cern.ch**Progress in Cooling, Mechanics, and Powering of Pixel Detectors / 46****Pixel module assembly for the ATLAS ITk****Author:** Dimitris Varouchas¹¹ *Centre National de la Recherche Scientifique (FR), IJCLab-Orsay***Corresponding Author:** dimitris.varouchas@cern.ch**Radiation damage studies / 31****Pixel sensor characterization****Author:** Aliakbar Ebrahimi¹¹ *Paul Scherrer Institute (CH)*

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Precision timing with silicon detectors

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Progress in diamond detectors

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SiPM characterization for SBC dark matter search

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

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Medical Imaging, CCDs, Detectors for IR, and Direct electron detection / 134

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

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Summary and outlook / 50

Summary and outlook

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

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Testing a prototype of 8x8x32 mm³ CdZnTe detector array

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The ALICE PIXEL Readout Upgrade

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The ALICE Pixel Sensor Upgrade

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The ATLAS Pixel Upgrade

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The BELLEII Pixel Upgrade

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The CMS Pixel Upgrade

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The LHCb Mighty Tracker

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

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TimeSPOT ASIC developments for 4D-pixel readout

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Tracker alignment in CMS: interplay with local pixel reconstruction

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Ultrafast X-ray Imaging

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VELO Upgrade II- the LHCb 4D Pixel Detector

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Vertically Aligned Carbon Nanotubes as Pixel Detector Substrate

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Welcome

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

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X-ray polarization measurements with CMOS for satellites

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YARR DAQ Software for ATLAS ITk Pixel and Strip detectors

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