

Third DTS POF rehearsal

Report of Contributions

Contribution ID: 1

Type: **not specified**

Advanced interconnects

Wednesday 10 January 2018 09:50 (50 minutes)

Presenter: Dr HANSEN, Karsten (DESY)

Contribution ID: 2

Type: **not specified**

"All-in-one" monolithic sensor systems

Wednesday 10 January 2018 09:00 (50 minutes)

Presenter: Dr WUNDERER, Cornelia (DESY)

Contribution ID: 3

Type: **not specified**

Detectors in astro-particle physics

Presenter: KARG, Timo (DESY)

Contribution ID: 4

Type: **not specified**

Detector in gamma and neutrino astronomy

Wednesday 10 January 2018 12:10 (50 minutes)

Presenter: KARG, Timo (DESY)

Contribution ID: 5

Type: **not specified**

Poster 24: Front-end digitization for fast imagers

Wednesday 10 January 2018 11:00 (2 minutes)

The idea is to perform the digitization close to where the sensitive signal is generated. Digital signals provide large margins in time and amplitude, making them robust. This approach is implemented in two readout ASICs for fast imagers. DSSC for single photon counting is using an in-pixel 8-bit ADC, and dSiPM for particle tracking benefits from the digital form of the sensor signal after active quenching. Features and results from measurements performed at lab and beam line are presented.

Presenters: DIEHL, Inge (DESY); Mr KALAVAKURU, Pradeep (DESY)

Session Classification: Poster

Contribution ID: 6

Type: **not specified**

Poster 26: The adaptive gain integrating pixel detector

Wednesday 10 January 2018 11:04 (2 minutes)

Presenters: Dr ALLAHGHOLI, Aschkan (DESY); LAURUS, Torsten (Desy)

Session Classification: Poster

Contribution ID: 7

Type: **not specified**

Poster 27: Development of an enhanced lateral drift sensor

Wednesday 10 January 2018 11:06 (2 minutes)

Presenters: Ms VELYKA, Anastasiia (DESY); Dr JANSEN, Hendrik (DESY)

Session Classification: Poster

Contribution ID: 8

Type: **not specified**

Poster 28: High resolution TPC

Wednesday 10 January 2018 11:08 (2 minutes)

Time Projection Chambers (TPC) have been part of particle physics since the 1970s. Good tracking, excellent pattern recognition and particle identification make them still attractive for future experiments as the International Linear Collider. As a result, research at DESY focuses on a large, high precision TPC with a material budget of 5% X_0 , capable of reaching a 100 μm single point resolution by utilizing Micro Pattern Gaseous Detectors compared to the multi-wire proportional chamber readout.

Presenters: Mr MALEK, Paul (DESY); Mr KRÄMER, Uwe (DESY)

Session Classification: Poster

Contribution ID: 9

Type: **not specified**

Poster 25: The Percival soft X-ray detector

Wednesday 10 January 2018 11:02 (2 minutes)

The larger peak brilliances of new sources and the need of single photon sensitivity, require detectors with high dynamic ranges. FLASH is driven the research on the Water Window (238 to 535 eV). At this energy range, attenuation length of photons in Si/SiO₂ is ~ 1 μm . The entrance window needs to be minimised. Innovative solutions for these two challenges have been successfully put to test on small systems. The large data rate has been addressed with hardware and software parallelised structures. The larger P2M (4x4cm², 27 μm pixel size) is now under test. First image has already been generated.

Presenter: Dr JONATHAN, Correa (DESY)**Session Classification:** Poster

Contribution ID: 10

Type: **not specified**

Poster 29: The DESY-II test beam facility

Wednesday 10 January 2018 11:10 (2 minutes)

The DESY II Test Beam Facility is operating three independent beam lines providing electrons with a momentum ranging from 1-6 GeV/c. The facility is open for the world-wide R&D community and its infrastructure meets many needs for detector development, characterization or commissioning. Many important results have proven that the facility will be crucial for future detectors in high energy physics and beyond. Including the local experience, the DESY II Test Beam Facility turns into being unique. (Note: combined MU+MT)

Presenters: Dr DREYLING-ESCHWEILER, Jan (DESY); Mr SCHUETZE, Paul (CMS)

Session Classification: Poster