

**AIDA - Academia meets
Industry: Solid-State Position
Sensitive Detectors**

Report of Contributions

Contribution ID: 0

Type: **not specified**

Welcome Address

Contribution ID: 2

Type: **not specified**

Particle Physics community needs

Contribution ID: 4

Type: **not specified**

Some applications of pixel sensors in life sciences imaging

Monday 26 March 2012 15:50 (20 minutes)

Presenter: FARUQI, Wasi (MRC Laboratory of Molecular Biology, Cambridge, UK)

Session Classification: Applications

Contribution ID: 6

Type: **not specified**

Advances in the Security

Monday 26 March 2012 16:30 (20 minutes)

Presenter: COONEY, Eamonn (KROMEK)

Session Classification: Applications

Contribution ID: 7

Type: **not specified**

Monitoring of Mixed Radiation Fields and Dosimetry with Pixel Detectors

Monday 26 March 2012 18:00 (20 minutes)

Presenter: JAKŮBEK, Jan (Czech Technical University in Prague)

Session Classification: Applications

Contribution ID: 8

Type: **not specified**

Applications in Spectroscopy

Monday 26 March 2012 17:20 (20 minutes)

Presenter: NOMEROTSKI, Andrei (Univ. Oxford)

Session Classification: Applications

Contribution ID: **10**

Type: **not specified**

Position Sensitive Silicon Detectors for particle beam diagnostics

Monday 26 March 2012 17:40 (20 minutes)

Presenter: CACCIA, Massimo (INFN Milano)

Session Classification: Applications

Contribution ID: 11

Type: **not specified**

DECTRIS Solid State Position Sensitive Detectors in Synchrotron Applications

Monday 26 March 2012 18:20 (20 minutes)

Presenter: SCHULZE-BRIESE, Clemens (Dectris Ltd.)

Session Classification: Applications

Contribution ID: 12

Type: **not specified**

Particle Physics community needs II

Contribution ID: 13

Type: **not specified**

ATLAS pixel detector

Monday 26 March 2012 13:30 (20 minutes)

Presenter: WERMES, Norbert (University of Bonn)

Session Classification: High Energy Physics community needs

Contribution ID: 15

Type: **not specified**

The ALICE Inner Tracking System Upgrade

Monday 26 March 2012 13:10 (20 minutes)

Presenter: CONTIN, Giacomo (CERN)

Session Classification: High Energy Physics community needs

Contribution ID: 17

Type: **not specified**

CMS strip tracker

Monday 26 March 2012 13:50 (20 minutes)

Presenter: DRAGICEVIC, Marko (HEPHY, Vienna)

Session Classification: High Energy Physics community needs

Contribution ID: **18**

Type: **not specified**

Detector Challenges at the Free-Electron Lasers

Monday 26 March 2012 15:00 (20 minutes)

Presenter: GRAAFSMA, Heinz (DESY)

Session Classification: High Energy Physics community needs

Contribution ID: 19

Type: **not specified**

State of the art in Position Sensitive Solid-State Detectors

Monday 26 March 2012 12:40 (30 minutes)

Presenter: MOSER, Hans-Günther (MPI Munich)

Session Classification: Topical review on major technology developments

Contribution ID: **20**

Type: **not specified**

LHCb

Monday 26 March 2012 14:10 (20 minutes)

Presenter: COLLINS, Paula (CERN)

Session Classification: High Energy Physics community needs

Contribution ID: 21

Type: **not specified**

Silicon Tracking and Vertexing at a Linear Collider

Monday 26 March 2012 15:20 (15 minutes)

Presenter: WINTER, Marc (IN2P3)

Session Classification: High Energy Physics community needs

Contribution ID: 28

Type: **not specified**

Dectris Ltd.

Tuesday 27 March 2012 09:00 (15 minutes)

Presenter: Dr SCHULZE-BRIESE, Clemens (Dectris Ltd.)

Session Classification: Company Presentations

Contribution ID: 29

Type: **not specified**

Baltic Scientific Instruments

Tuesday 27 March 2012 09:15 (15 minutes)

Presenter: Dr GOSTILO, Vladimir (Baltic Scientific Instruments)

Session Classification: Company Presentations

Contribution ID: **30**

Type: **not specified**

MARS Bioimaging

Tuesday 27 March 2012 09:30 (15 minutes)

Presenter: Dr BUTLER, Anthony (MARS Bioimaging)

Session Classification: Company Presentations

Contribution ID: 31

Type: **not specified**

ISEG Spezialelektronik GmbH

Tuesday 27 March 2012 09:45 (15 minutes)

Presenter: Mr CHRISTIANS, Ludwig (ISEG Spezialelektronik GmbH)

Session Classification: Company Presentations

Contribution ID: 32

Type: **not specified**

Kromek Ltd.

Tuesday 27 March 2012 10:00 (15 minutes)

Presenter: Mr COONEY, Eamonn (Kromek Ltd.)

Session Classification: Company Presentations

Contribution ID: 33

Type: **not specified**

Struck Innovative Systeme GmbH

Tuesday 27 March 2012 10:15 (15 minutes)

Presenter: Dr KIRSCH, Matthias (Struck Innovative Systeme GmbH)

Session Classification: Company Presentations

Contribution ID: 34

Type: **not specified**

Technology Transfer Agency Techtra Sp. z o.o.

Tuesday 27 March 2012 11:45 (15 minutes)

Presenter: Mr BIELOWKA, Piotr (Technology Transfer Agency Techtra Sp. z o.o.)

Session Classification: Company Presentations

Contribution ID: 36

Type: **not specified**

Canberra

Tuesday 27 March 2012 11:30 (15 minutes)

Presenter: Mrs KETERS, Marijke (Canberra)

Session Classification: Company Presentations

Contribution ID: 37

Type: **not specified**

Philips Digital Photon Counting

Tuesday 27 March 2012 11:15 (15 minutes)

Presenter: Dr HAEMISCH, York (Philips Digital Photon Counting)

Session Classification: Company Presentations

Contribution ID: **38**

Type: **not specified**

CAEN SpA

Tuesday 27 March 2012 11:00 (15 minutes)

Presenter: Mr DI MAIO, Gianni (Caen SpA)

Session Classification: Company Presentations

Contribution ID: 46

Type: **not specified**

Position Sensitive Silicon Detectors for particle beam diagnostics

Quality assurance (QA) of accelerated particle beams is of utmost importance for scientific experiments and beyond, notably in the medical field.

Position sensitive silicon detectors offer the possibility to image beams and have a full characterization in terms of spatial profile, intensity and energy. However, being interceptive, their use is likely to be limited to QA before & after the physics run/planned irradiation.

A few exemplary illustrations are presented, together with a perspective for future developments.

Primary author: Prof. CACCIA, Massimo (Univ. degli Studi Milano-Bicocca (IT))

Presenter: Prof. CACCIA, Massimo (Univ. degli Studi Milano-Bicocca (IT))

Contribution ID: 47

Type: **not specified**

Ketek

Tuesday 27 March 2012 12:00 (15 minutes)

Presenter: WIEST, Florian (KETEK)

Session Classification: Company Presentations

Contribution ID: 48

Type: **not specified**

Silicon Tracking and Vertexing at a Linear Collider

High precision, thin, low power and cost effective silicon based detectors are essential for achieving the research programme at the Linear Collider, a world accelerator project calling for a new generation of experiments fixing new standards in detection sensitivity.

The talk will provide an overview of the silicon based tracking and vertexing sub-systems composing the experimental concepts under development. It will highlight those technical aspects which are currently most limiting the experimental sensitivity and on which most of the on-going R&D activity is concentrating.

Primary author: WINTER, Marc (IN2P3)

Presenter: WINTER, Marc (IN2P3)

Contribution ID: 49

Type: **not specified**

TALENT - Training Program for Young Scientists in the Field of Instrumentation for Radiation Detection

Monday 26 March 2012 15:35 (15 minutes)

Primary author: KAUTTU, Pietari (Helsinki Institute of Physics (FI))

Presenter: KAUTTU, Pietari (Helsinki Institute of Physics (FI))

Session Classification: High Energy Physics community needs

Contribution ID: 50

Type: **not specified**

TALENT

TALENT is a 4-year multi-site training network aiming at career development of young researchers in the field of instrumentation for radiation detection. The project focuses on piloting new state-of-the-art technologies on the new precision pixel detector ATLAS Insertable B-Layer detector (IBL) and for future precision tracking detectors. The project will strengthen the co-operation between research and multidisciplinary industry in the fields of advanced radiation sensors, fast and low power consumption read-out and data acquisition electronics, new cooling technologies and ultra-light mechanical support structures.

During the next years, completely new technical solutions are required to enable the construction of new or upgrading the existing high energy particle physics research infrastructures and detectors at CERN Large Hadron Collider (LHC). Aims for running the research facilities on increased intensity levels, pose a need to significantly improve the detector technologies mainly due to the 10 fold increased radiation level and data volume. Answering the hostile environment challenges and increased data acquisition needs will require vigorous industry collaboration and research on:

- Radiation-hard precision pixel sensors
- Radiation-hard high-density electronics and interconnection technologies
- New mechanical integration methods for light-weight support and cooling systems
- Detector performance and system integration
- Dissemination, knowledge transfer and external research funding

The aim of TALENT is to enhance interaction between European stakeholders to significantly increase the RTD efficiency by finding new technical solutions for future scientific infrastructures. The outcome will be to create the means to produce affordable high performance detector modules in European industry and thus answer to the forthcoming needs of research infrastructures and industry application demand.

TALENT is currently recruiting 15 Early Stage Researchers and 2 Experienced Researchers!

Primary author: KAUTTU, Pietari (Helsinki Institute of Physics (FI))

Contribution ID: 51

Type: **not specified**

Functional computed tomography using energy resolved photon counting detectors

Monday 26 March 2012 16:10 (20 minutes)

Primary author: BUTLER, Anthony (University of Otago)

Presenter: BUTLER, Anthony (University of Otago)

Session Classification: Applications

Contribution ID: 53

Type: **not specified**

Amsterdam Scientific Instruments BV

Tuesday 27 March 2012 12:15 (15 minutes)

Presenter: POOLMAN, Hans Roeland (Amsterdam Scientific Instruments BV)

Session Classification: Company Presentations

Contribution ID: 54

Type: **not specified**

Welcome Note

Monday 26 March 2012 12:30 (5 minutes)

Presenter: DOSCH, Helmut (DESY)

Session Classification: Welcome address

Contribution ID: 55

Type: **not specified**

Event Overview

Monday 26 March 2012 12:35 (5 minutes)

Presenter: LE GOFF, Jean-Marie (CERN)

Session Classification: Welcome address

Contribution ID: 56

Type: **not specified**

Creating a hightec spin-off from Academia

Presenter: POOLMAN, Hans Roeland (Amsterdam Scientific Instruments BV)

Contribution ID: 57

Type: **not specified**

ALIBAVA Systems

Tuesday 27 March 2012 12:30 (10 minutes)

Presenter: LOZANO FANTOBA, Manuel (Universidad de Valencia (ES))

Session Classification: Company Presentations