AIDA - Academia meets Industry: Advanced interconnections for chip packaging in future detectors

Report of Contributions

https://indico.cern.ch/e/Industry2013

Contribution ID: **27** Type: **not specified**

Welcome Note

Monday 8 April 2013 12:50 (5 minutes)

Presenter: FALCIANO, Speranza (Universita e INFN, Roma I (IT))

Session Classification: Welcome address

Contribution ID: **28** Type: **not specified**

Event Overview

Monday 8 April 2013 12:55 (5 minutes)

Presenter: LE GOFF, Jean-Marie (CERN)

Session Classification: Welcome address

Contribution ID: **29** Type: **not specified**

Through-Silicon-Vias (VIC and Interposers)

Contribution ID: **30** Type: **not specified**

Solid-Liquid Interdiffusion

Contribution ID: **31** Type: **not specified**

Call for speakers

for Applied R&D from Institutions and Industry to present capability

Contribution ID: **32** Type: **not specified**

Needs and challenges for ICT (CPU, CPU+Memory, Optolink, Imaging)

Contribution ID: **33** Type: **not specified**

Particle Physics

Monday 8 April 2013 13:00 (40 minutes)

Presenter: Dr LIPTON, Ronald (Fermi National Accelerator Lab. (US))

Session Classification: Needs of communities

Contribution ID: **34** Type: **not specified**

Astroparticle Physics

Monday 8 April 2013 13:40 (20 minutes)

Presenter: AMBROSI, Giovanni (Universita e INFN (IT))

Session Classification: Needs of communities

Contribution ID: **35** Type: **not specified**

Medical Imaging

Monday 8 April 2013 14:20 (20 minutes)

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

Session Classification: Needs of communities

Contribution ID: **36** Type: **not specified**

3D needs and opportunities in X-ray detection

Monday 8 April 2013 14:00 (20 minutes)

Presenter: GRAAFSMA, Heinz (DESY)

Session Classification: Needs of communities

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

Overview, state-of-the-art

Monday 8 April 2013 15:10 (30 minutes)

Presenter: HENRY, David (CEA-LETI-MINATEC)

Session Classification: TSV-based Vertical Interconnections

Contribution ID: **38** Type: **not specified**

Keynote - Trend in Industry

Monday 8 April 2013 15:40 (30 minutes)

Presenter: SHAPIRO, Mike (IBM)

Session Classification: TSV-based Vertical Interconnections

Contribution ID: **39** Type: **not specified**

Shrinking 3D ICs - Capabilities and Frontiers of Through Silicon Via Technologies

Tuesday 9 April 2013 12:40 (20 minutes)

Author: KLUMPP, Armin (Fraunhofer EMFT)

Presenter: KLUMPP, Armin (Fraunhofer EMFT)

Session Classification: Frontiers in Interconnections

Contribution ID: **40** Type: **not specified**

3D Integration Technology used for Hybrid Pixel Detectors : Medipix project latest results

Monday 8 April 2013 18:40 (20 minutes)

Presenter: HENRY, David (CEA-LETI-MINATEC)

Session Classification: Through-Silicon Vias (TSV)

Contribution ID: **41** Type: **not specified**

Method for selecting optimal 3D IC technology for detectors

Monday 8 April 2013 17:20 (20 minutes)

Presenter: MOTOYOSHI, Makoto (Tohoku-MincroTec Co., Ltd (T-Micro))

Session Classification: Through-Silicon Vias (TSV)

Contribution ID: **42** Type: **not specified**

CAD tools for 3D-IC and TSV-based designs

Monday 8 April 2013 16:40 (20 minutes)

Presenter: TORKI, Kholdoun (CMP)

Session Classification: Through-Silicon Vias (TSV)

Contribution ID: **43** Type: **not specified**

The combined technology of TSV and SLID bond

Tuesday 9 April 2013 12:00 (20 minutes)

Author: KLUMPP, Armin (Fraunhofer EMFT)

Presenter: KLUMPP, Armin (Fraunhofer EMFT)

Session Classification: Chip stacking through microbump bonding

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

Micro bump-bonding and TSV 3D integration expertise at Fraunhofer IZM

Monday 8 April 2013 17:40 (20 minutes)

Presenter: FRITZSCH, Thomas (Fraunhofer IZM)

Session Classification: Through-Silicon Vias (TSV)

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

TSV and SLID for planar Silicon Detectors

Tuesday 9 April 2013 12:20 (20 minutes)

Author: MACCHIOLO, Anna (Max-Planck-Institut fuer Physik (Werner-Heisenberg-Institut) (D)

Presenter: MACCHIOLO, Anna (Max-Planck-Institut fuer Physik (Werner-Heisenberg-Institut) (D)

Session Classification: Chip stacking through microbump bonding

Contribution ID: **46** Type: **not specified**

Tezzaron TSV-related activities

Monday 8 April 2013 18:00 (20 minutes)

Presenter: PATTI, Robert (Tezzaron Semiconductor)

Session Classification: Through-Silicon Vias (TSV)

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

SiPM Interconnections to 3D electronics

Tuesday 9 April 2013 09:15 (15 minutes)

Author: NINKOVIC, Jelena (Max PlanckInstitute for Physics)

Presenter: NINKOVIC, Jelena (Max PlanckInstitute for Physics)

Session Classification: Integration of sensors with 3D electronics

Contribution ID: **48** Type: **not specified**

Packaging technologies at IMB-CNM (CSIC)

Monday 8 April 2013 18:20 (20 minutes)

Presenter: CASAS, Enric Cabruja (IMB-CNM (CSIC))

Session Classification: Through-Silicon Vias (TSV)

Contribution ID: **49** Type: **not specified**

Perspective of the sensor interconnectivity to the TSV readout ASIC

Tuesday 9 April 2013 09:30 (15 minutes)

Author: KALLIOPUSKA, Juha (University of Helsinki Faculty of Science)

Presenter: KALLIOPUSKA, Juha (University of Helsinki Faculty of Science)

Session Classification: Integration of sensors with 3D electronics

Contribution ID: **50** Type: **not specified**

development of HV CMOS - sensors for 3D integration

Tuesday 9 April 2013 09:45 (15 minutes)

Author: PERIC, Ivan (Ruprecht-Karls-Universitaet Heidelberg (DE))

Presenter: Dr PERIC, Ivan (Ruprecht-Karls-Universitaet Heidelberg (DE))

Session Classification: Integration of sensors with 3D electronics

Contribution ID: **51** Type: **not specified**

Vertical Integration techniques used for MEMS

Tuesday 9 April 2013 10:00 (15 minutes)

Author: Mr HOFMANN, Lutz (Fraunhofer ENAS)

Presenter: Mr HOFMANN, Lutz (Fraunhofer ENAS)

Session Classification: Integration of sensors with 3D electronics

Contribution ID: **52** Type: **not specified**

IMEC's activities in imagers and imager stacking

Tuesday 9 April 2013 10:15 (15 minutes)

Author: DE MOOR, Piet (IMEC)

Presenter: DE MOOR, Piet (IMEC)

Session Classification: Integration of sensors with 3D electronics

Contribution ID: **53** Type: **not specified**

Methods for architectural design - methods of 3D-integrated systems

Monday 8 April 2013 17:00 (20 minutes)

Presenter: HEINIG, Andy (EAS Fraunhofer Dresden)

Session Classification: Through-Silicon Vias (TSV)

Contribution ID: **54** Type: **not specified**

Digital Photon Counting Technology –horizontal integration of SPAD and CMOS electronics

Tuesday 9 April 2013 10:30 (15 minutes)

Author: YORK, Haemisch (Philips Technologie GmbH)

Presenter: YORK, Haemisch (Philips Technologie GmbH)

Session Classification: Integration of sensors with 3D electronics

Contribution ID: **55** Type: **not specified**

Capacitively coupled active sensors in 180nm HV-CMOS technology

Tuesday 9 April 2013 10:45 (15 minutes)

Author: MUENSTERMANN, Daniel (CERN)

Presenter: MUENSTERMANN, Daniel (CERN)

Session Classification: Integration of sensors with 3D electronics

Contribution ID: **56** Type: **not specified**

Unconventional fabrication approaches create opportunities for 3D integration

Tuesday 9 April 2013 13:00 (20 minutes)

Author: FISCHER, Andreas

Presenter: FISCHER, Andreas (KTH)

Session Classification: Frontiers in Interconnections

Contribution ID: **57** Type: **not specified**

Results of FE_TC4_P1, the first hybrid pixel circuit en Tezzaron-Chartered technology

Tuesday 9 April 2013 11:00 (15 minutes)

Author: CLEMENS, JCC (Centre National de la Recherche Scientifique (FR))

Presenter: CLEMENS, JCC (Centre National de la Recherche Scientifique (FR))

Session Classification: Integration of sensors with 3D electronics

Contribution ID: **58** Type: **not specified**

IPDiA's Interposer and TSV solutions

Tuesday 9 April 2013 11:15 (15 minutes)

Presenter: BELLENGER, Stephane (Belletech)

Session Classification: Integration of sensors with 3D electronics