

**International Forum on Detectors for Photon Science (IFDEPS)**  
**Feb. 28th - Mar. 2nd, 2016**

**Sunday, Feb. 28, 2016**

14:00 departure of shuttle bus from Tokyo Station  
16:00 arrival of shuttle bus  
16:00 - 17:00 check-in

**Opening Session**

Chair: Gabriella Carini

17:00 - 17:10 "Welcome Address"  
Takaki Hatsui (RIKEN, Japan)

17:10 - 17:30 "Motivation and Goals of IFDEPS"  
Pablo Fajardo on behalf of the Organizing Committee

17:30 - 18:10 "Frontiers in high-contrast nano-imaging opened up by coherent X-rays"  
Yoshinori Nishino (Hokkaido University, Japan)

19:00 - 20:30 (dinner)

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**Monday, Feb. 29, 2016**

**Highlight Technology Topic Session: CMOS Image Sensors for optical light**

Chair: Pablo Fajardo

9:00 - 9:25 "Recent Trends at Image Sensors"  
Nobukazu Teranishi (U. Hyogo & RIKEN, Japan)

9:25 - 9:55 "Canon's CMOS Image Sensors for Scientific Applications:  
Development of 250Mpixel CMOS Image Sensor"  
Hidekazu Takahashi, Kazuhiro Morimoto (Canon Inc., Japan)

9:55 - 10:05 discussion

10:05 - 10:30 (coffee break)

**Highlight Technology Topic Session: High Dynamic Range CMOS Image Sensors**

Chair: Nobukazu Teranishi

10:30 - 11:00 "PERCIVAL: A High-Dynamic range, Back Side Illuminated, Wafer-Scale,  
Low Noise CMOS Image Sensor for the Detection of Low Energy X-Rays"  
Renato Turchetta (STFC Rutherford Appleton Laboratory, UK)

11:00 - 11:30 "Wide dynamic range LOFIC CMOS image sensors: principle, achievements and extendibility"  
Rihito Kuroda (Tohoku University, Japan)

11:30 - 12:00 "Ultra-High Sensitivity Wide Dynamic Range Image Sensors  
Using High Conversion-Gain Detectors and Multiple-  
Sampling-Based Readout Techniques"  
Shoji Kawahito (Shizuoka University, Japan)

12:00 - 12:10 discussion

12:10 - 14:10 (lunch break)

**Highlight Technology Topic Session: CMOS Image Sensor for extended wavelength**

Chair: Takaki Hatsui

14:10 - 14:40 "e2v detectors for XFEL and synchrotron applications"  
Paul Jerram (e2v, UK)

14:40 - 15:10 "Fine-pitch Detectors for Soft X-ray RIXS"  
Peter Denes (Lawrence Berkeley National Laboratory, USA)

15:10 - 15:40 "Scientific CMOS Imaging Arrays on High Resistivity Silicon – Challenge and Opportunity –"  
Stefan Lauxtermann (Sensor Creations, USA)

15:40 - 16:10 "Fully depleted CMOS image sensors for science applications"  
Konstantin Stefanov (Open University, UK)

16:10 - 16:20 discussion

19:00 - 21:00 (dinner)

**Tuesday, Mar. 1, 2016**

**New detection challenges in photon science applications: High Photon Energy X-rays**

Chair: Antonino Miceli

- 8:30 - 9:00 "Recent development and new challenges in indirect detection of X-rays at the ESRF"  
Thierry Martin (ESRF, France)
- 9:00 - 9:30 "High-Z hybrid pixel detectors"  
David Pennicard (DESY, Germany)
- 9:30 - 9:40 discussion
- 9:40 - 10:05 (break)

**New detection challenges in photon science applications: High Dynamic Range Detection**

Chair: Heinz Graafsma

- 10:05 - 10:35 "Jungfrau: a high dynamic range gain switching hybrid pixel detector"  
Bernd Schmitt (Paul Scherrer Institute, Switzerland)
- 10:35 - 11:05 "The development of the DSSC Camera for the European XFEL"  
Matteo Porro (European XFEL, Germany)
- 11:05 - 11:35 "Mixed-Mode Charge-Integrating Pixel Array Detectors"  
Mark Tate (Cornell University, USA)
- 11:35 - 12:05 "Fermi-Argonne Silicon Pixel Array X-Ray (FASPAX) detector development"  
Farah Fahim (Fermilab, USA)
- 12:05 - 12:15 discussion
- 12:15 - 14:00 (lunch break)

**New detection challenges in photon science applications: High Sensitivity High Spatial Resolution**

Chair: Peter Denes

- 14:00 - 14:30 "Design of Single Photon Counting Integrated Circuits in Nanometer and 3D Technologies"  
Pawel Grybos (AGH University of Science and Technology, Poland)
- 14:30 - 15:00 "MÖNCH: joys and sorrows of 25 µm pitch pixels"  
Anna Bergamaschi (Paul Scherrer Institute, Switzerland)
- 15:00 - 15:30 "RIXSCam : A new high performance camera for RIXS applications"  
Andrew Holland (Open University, UK)
- 15:30 - 15:40 discussion
- 15:40 - 16:10 (break)

**Novel concepts toward future detectors: Sparse Readout Detectors**

Chair: Bernd Schmitt

- 16:10 - 16:40 "VIPIC: A custom-made detector for x-ray speckle measurements"  
D. Peter Siddons (Brookhaven National Laboratory, USA)
- 16:40 - 17:10 "Data driven CMOS ASICs, a path for time resolved experiments at 3rd generation synchrotrons"  
Nicola Tartoni (Diamond Light Source, UK)
- 17:10 - 17:40 "Event driven type of SOI pixel sensors for future X-ray astronomy satellites"  
Takeshi Go Tsuru (Kyoto University, Japan)
- 17:40 - 17:50 discussion
- 17:50 - 18:00 Adjourn
- 19:00 - 21:00 (dinner)

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**Wednesday, Mar. 2, 2016**

- 10:00 departure of shuttle bus to Tokyo Station
- 12:00 arrival of shuttle bus