

PROCEEDINGS

Manuscripts submitted to the workshop will be reviewed and published in a hardcover volume of Nuclear Instruments and Methods in Physics Research, section A, Elsevier Science B.V.

WORKSHOP LOCATION

The workshop will be held in the building of the Faculty of Science of the University of Pisa, one of the most ancient universities in Italy, founded in 1343. The building is situated in the center of Pisa and can be easily reached by all the hotels in downtown.

ACCOMMODATION

Participants will be offered a choice of hotels in town. The workshop secretariat will pre-book a limited number of rooms and participants are invited to make their reservations directly with the hotels.

REGISTRATION

Forms for the (pre-) registration can be found on our website. They may be returned on-line or printed and fax-ed to the workshop secretariat. The deadline for the pre-registration against a reduced fee is 1st June 2006. If you have problems with web access, please contact the workshop secretariat.

SUBMISSION OF ABSTRACTS

The deadline for submission of abstracts is 1st May 2006. Instructions to the authors will be available on our website.

FEE

The registration fee is 500 Euros, including all social events. During the pre-registration period (until 1st June 2006), a reduced fee amounting to 450 Euros will be charged to participants belonging to Universities and Pure Research Institutions.

WORKSHOP SECRETARIAT

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FIRST ANNOUNCEMENT

8TH INTERNATIONAL WORKSHOP ON RADIATION IMAGING DETECTORS

2 - 6 July 2006



Department of
Physics "E. Fermi",
University of Pisa
and INFN Pisa

Pisa, Italy

IWORLD

The International Workshops on Radiation Imaging Detectors are held yearly and provide an international forum for discussing current research and developments in the area of position sensitive detectors for radiation imaging, including both semiconductor detectors and scintillator-based detectors. Information on previous workshops can be found at:
<http://iworld-8.df.unipi.it>

Topics include processing and characterization of detector materials, design of photon counting or integrating pixel electronics, hybridization and interconnect technologies, readout systems, and applications in various scientific and industrial fields.

The 8th workshop will be hosted by the Department of Physics "E. Fermi" of the University of Pisa and by the INFN - Pisa, Italy.

PROGRAM

The workshop will have plenary sessions with invited and contributed papers presented orally, as well as a poster session. The invited talks will be chosen to review the different areas and the recent accomplishments. Several social events will be organized around the workshop, including the reception and the workshop dinner in the beautiful outskirts of Pisa.

PRELIMINARY SCIENTIFIC PROGRAM

Detector Materials, Device Processing and Technologies:

- Silicon (Single Crystal and Amorphous)
- Gallium Arsenide, Cd(Zn)Te
- Other Semiconductors
- Scintillators
- 3D and Edgeless Sensors
- Processing
- Radiation Damage

Front-end Electronics and Readout

- Integrating Front-Ends and CCD's
- Photon Counting Front-Ends
- Monolithic (Active Pixel Sensors)
- Detector Readout Architectures

Interconnect Technologies

- Bump Bonding
- High Density Interconnect
- Multi Chip Detector Modules

Imaging theory

- Integrating vs Counting Mode
- Energy Weighting
- Correction Algorithms

Applications

- (Bio-) Medical Imaging
- Material Analysis
- X-Ray Diffraction and Fluorescence
- Protein Crystallography
- Fusion Research
- Neutron Imaging
- Space Applications
- High Energy Physics

Scientific Committee

Mario Caria, *Université d'Auvergne, France*

Christer Fröjd, *Mid-Sweden University, Sweden*

Heinz Graafsma, *ESRF Grenoble, France*

Diana Hannikainen, *University of Helsinki, Finland*

Jens Ludwig, *University of Freiburg, Germany*

Seppo Nenonen, *Oxford Instrum. Analytical Oy, Finland*

Sture Petersson, *KTH/Mid, Sweden (Chairperson)*

Stanislav Pospisil, *CTU - Prague, Czech Republic*

Valeria Rosso, *University of Pisa and INFN Pisa, Italy*

Ken Smith, *University of Glasgow, Scotland*

Jan Visschers, *NIKHEF, The Netherlands*

Local Organizing Committee

Nicola Belcari

Maria Giuseppina Bisogni

Massimo Carpinelli

Pasquale Delogu

Federico Quagliarini

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