**Preliminary Programme Imaging 2016 June 13-16**

Albanova University Center
Roslagstullsbacken 21, Stockholm

## Monday June 13

<table>
<thead>
<tr>
<th>Time</th>
<th>Location</th>
<th>Event Details</th>
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<tbody>
<tr>
<td>10:00-13:00</td>
<td>The Svedberg hall, FD5</td>
<td>Registration (next to the main entrance)</td>
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<tr>
<td>13:00-13:05</td>
<td></td>
<td>Opening Speech - Peter Carpelan, Commissioner of Research Stockholm County Council</td>
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<td></td>
<td>Moderator: Mats Danielsson, KTH Royal Institute of Technology</td>
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<tr>
<td>13:15-13:45</td>
<td>Peter R Saulson, Syracuse University, USA</td>
<td>“Opening the Gravitational Wave Window on the Universe”</td>
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<tr>
<td>13:45-14:15</td>
<td>David Nygren, University of Texas at Arlington, USA</td>
<td>“Single Molecule Fluorescent Imaging and the Search for Neutrino-less Double Beta-Decay in 136Xe”</td>
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<tr>
<td>14:15-14:45</td>
<td>Willi Kalender, University of Erlangen, Germany</td>
<td>“Clinical impact of spiral CT”</td>
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<tr>
<td>14:45-15:15</td>
<td>Coffee Break</td>
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<tr>
<td></td>
<td>Moderator: Willi Kalender, University of Erlangen</td>
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<tr>
<td>15:15-16:45</td>
<td>Jiang Hsieh</td>
<td>“CT instrumentation and image reconstruction”</td>
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<td>Marc Kachelriess, German Cancer Research Center Heidelberg, Germany</td>
<td>“Motion-Compensated Image Reconstruction”</td>
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<tr>
<td>16:45-17:15</td>
<td>Niels Jørgen Westergaard, DTU Technical University of Denmark, Denmark</td>
<td>“X-ray astronomical imaging with emphasis on the Athena mission”</td>
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<tr>
<td>17:15-17:45</td>
<td>David Haviland, Member of the Nobel Prize Committee, KTH Royal Institute of Technology, Sweden</td>
<td>“How to get the Nobel Prize – A bit about the origins and history of the Nobel Prize in Physics”</td>
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<tr>
<td>18:15</td>
<td>Welcome Reception (8th floor, Small elevator next to the main entrance Albanova University Center)</td>
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## Tuesday June 14

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<thead>
<tr>
<th>Time</th>
<th>The Svedberg hall, FD5</th>
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<tbody>
<tr>
<td>09:00-09:12</td>
<td><strong>Moderator:</strong> Bo Cederwall, KTH Royal Institute of Technology</td>
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<td>Maria Doncel, University of Liverpool, UK</td>
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<td></td>
<td>“Performance and imaging capabilities of the DEGAS high-resolution gamma-ray detector array for the DESPEC experiment at FAIR”</td>
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<tr>
<td>09:12-09:24</td>
<td>Yuri Yoshihara, The University of Tokyo, Japan</td>
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<tr>
<td></td>
<td>“Color Sensitive Silicon Photomultiplier with micro-cell level encoding for Crystal Identification of PET detector”</td>
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<tr>
<td>09:24-09:36</td>
<td>Yuri Yoshihara, The University of Tokyo, Japan</td>
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<td></td>
<td>“Evaluation of Double Photon Coincidence Compton Imaging method with Geant4 Simulation”</td>
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<tr>
<td>09:36-10:06</td>
<td>Rebecca Fahrig, Stanford University, USA</td>
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<td>“Multi-modality image guidance for minimally invasive therapies”</td>
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<tr>
<td>10:06-10:40</td>
<td><strong>Coffee Break</strong></td>
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<tr>
<td>10:40-10:52</td>
<td><strong>Moderator:</strong> Massimiliano Colarieti-Tosti, KTH Royal Institute of Technology</td>
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<td></td>
<td>Saurav Saurav, Indian School of Mines (ISM), India</td>
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<td></td>
<td>“Chaotic system based multi-layers security of gray-scale image combined with RP2DFRFT and Arnold transform”</td>
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<tr>
<td>10:52-11:04</td>
<td>Hartmut Gemmeke, (KIT), Germany</td>
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<tr>
<td></td>
<td>“3D Ultrasound Computer Tomography: Hardware Setup, Reconstruction Methods and First Clinical Results”</td>
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<tr>
<td>11:04-11:16</td>
<td>Marcin Balcerzyk, Universidad de Sevilla, Spain</td>
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<td></td>
<td>“Application of EARL (ResEARch 4 Life and rejected protocols for [18F]FDG-PET/CT clinical and research studies.”</td>
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<tr>
<td>11:16-11:28</td>
<td>Dzevad Belkic, Karolinska Institutet, Sweden</td>
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<td></td>
<td>“New universal cross sections for electromagnetic interactions in image-guided hadrontherapy”</td>
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<tr>
<td>11:28-11:40</td>
<td>Karen Belkic, Karolinska Institutet, Sweden</td>
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<td></td>
<td>“Optimization of magnetic resonance spectroscopic imaging for noisy data from cancerous ovary”</td>
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<tr>
<td>11:40-13:10</td>
<td><strong>Lunch Break</strong></td>
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<th>Time</th>
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<tbody>
<tr>
<td></td>
<td>Moderator: Josefin Larsson, KTH Royal Institute of Technology</td>
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<tr>
<td>13:10-13:40</td>
<td>Christer Fuglesang, KTH Royal Institute of Technology, Sweden</td>
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<td></td>
<td>“The JEM-EUSO programme: Imaging of ultra-high energy cosmic rays by high-speed UV-“video” from space”</td>
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<tr>
<td>13:40-14:10</td>
<td>Ariel Goobar, Stockholm University, Sweden</td>
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<td>“Progress in time-domain optical astronomy and observations of cosmic explosions”</td>
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<tr>
<td>14:10-14:40</td>
<td>Dan Kiselman, Stockholm University, Sweden</td>
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<td></td>
<td>&quot;Imaging the Sun with the Swedish 1-m Solar Telescope (SST)&quot;</td>
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<tr>
<td>14:40-14:52</td>
<td>Renato Pani, Sapienza University, Italy</td>
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<td></td>
<td>“Characterization of CRY-018 and CRY-019 monolithic scintillation crystals for SPECT and PET applications”</td>
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<tr>
<td>14:52-15:04</td>
<td>Yuki Mitsuya, The University of Tokyo, Japan</td>
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<td>&quot;A novel radiation imaging system with scintillating glass gas electron multiplier and flat-panel photodiode array”</td>
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<td>15:04-15:35</td>
<td>Coffee Break</td>
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<td>Moderator: Christer Fuglesang, KTH Royal Institute of Technology</td>
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<tr>
<td>15:35-15:47</td>
<td>Yashar Hormozan, KTH Royal Institute of Technology, Sweden</td>
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<td>“High resolution imaging using structured scintillators and photon counting”</td>
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<tr>
<td>15:47-16:17</td>
<td>Michael Campbell, CERN, Switzerland</td>
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<td>“X-ray imaging and single particle detection using the Medipix chip family”</td>
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<tr>
<td>17:00</td>
<td>Conference Dinner (Bus transfer departures from Albanova at 17:00, dinner starts at 18:30)</td>
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<tr>
<td>09:00-09:30</td>
<td>Taly Gilat Schmidt, Marquette University, USA</td>
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<td>&quot;Spectral CT Imaging with Optimization-Based Reconstruction&quot;</td>
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<td>09:30-10:00</td>
<td>Maurice Garcia-Sciveres, Lawrence Berkeley National Lab, USA</td>
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<td>&quot;Future Pixel Detectors for High Rate and Radiation Particle Physics Experiments&quot;</td>
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<tr>
<td>10:00-10:12</td>
<td>Conny Hansson, Nikhef National institute for subatomic physics, NL</td>
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<td>&quot;The Tynode: a new vacuum electron multiplier for a new generation of particle detectors&quot;</td>
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<td>10:12-10:24</td>
<td>Mats Persson, KTH Royal Institute of Technology, Sweden</td>
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<td>&quot;Superresolution x-ray imaging of blood vessels&quot;</td>
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<tr>
<td>10:24-10:54</td>
<td>Andrew Boston, University of Liverpool, UK</td>
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<td>&quot;Gamma-ray imaging systems for medicine and security&quot;</td>
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<tr>
<td>10:54-11:30</td>
<td>Coffee Break</td>
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<tr>
<td>11:30-12:00</td>
<td>Kai Vetter, University of California Berkeley, USA</td>
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<tr>
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<td>&quot;Gamma-Ray Imaging for Nuclear Security and Safety: Towards 3D Gamma-Ray Vision&quot;</td>
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<tr>
<td>12:00-12:12</td>
<td>Tobias Habermann, TU Darmstadt, Germany</td>
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<td>&quot;Application of gamma imaging techniques for the characterisation of position sensitive gamma detectors&quot;</td>
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<td>12:12-12:42</td>
<td>Lars Furenlid, University of Arizona, USA</td>
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<td></td>
<td>&quot;Hardware and Software Strategies for Adaptive Molecular Imaging&quot;</td>
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<td>12:42-12:54</td>
<td>Elisa Jimenez-Ortega, Universidad de Sevilla, Spain</td>
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<td>&quot;New model for PET/CT image processing and radiotherapy planning based on dose painting&quot;</td>
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<td>12:54-14:30</td>
<td>Lunch Break</td>
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<tr>
<td>Moderator</td>
<td>Kai Vetter, University of California Berkeley</td>
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<tr>
<td>14:30-15:00</td>
<td>Philippe Douek, Univ. Lyon, France</td>
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<td>“Potential Clinical Benefits of Spectral Photon Counting CT: In vivo results using a pre-clinical prototype”</td>
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<td>15:00-15:12</td>
<td>H. Heather Chen-Mayer, NIST, USA</td>
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<td>“CT lung volume histogram correction based on a multi-scanner phantom study”</td>
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<td>15:12-15:24</td>
<td>Cheng Xu, KTH Royal Institute of Technology, Sweden</td>
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<td>“Capacitance estimation of a segmented silicon strip detector”</td>
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<tr>
<td>15:24-16:00</td>
<td>Panel Discussion: “The Role of Physics in Imaging Technology for the next century”</td>
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<td>15:00-16:30</td>
<td>Coffee Break</td>
</tr>
<tr>
<td>Moderator</td>
<td>Fabio Sauli, CERN, Switzerland</td>
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<tr>
<td>16:30-16:42</td>
<td>Karl Berggren, KTH Royal Institute of Technology, Sweden</td>
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<tr>
<td></td>
<td>“A Slit-Scanning System for Photon-Counting Breast Tomosynthesis”</td>
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<tr>
<td>16:42-17:12</td>
<td>Paolo Soffitta, IAPS/INAF, Italy</td>
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<td>“XIPE (the X-ray Imaging Polarimetry Explorer): opening a new window in the X-ray sky”</td>
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<tr>
<td>17:12-17:42</td>
<td>Hiroshi Nakajima, Osaka University, Japan</td>
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<td>“Astronomical Imaging with the X-ray Observatory Hitomi”</td>
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<tr>
<td>17:42-18:54</td>
<td>Björn Hansson, Excillum AB, Sweden</td>
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<td></td>
<td>“Liquid-metal-jet X-ray tube technology and tomography applications”</td>
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<td>09:00-09:12</td>
<td>Wujun Mi, KTH Royal Institute of Technology, Sweden</td>
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<td>“Point-focusing stack lens for high-energy x-ray”</td>
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<td>09:12-09:24</td>
<td>Xuejin Liu, KTH Royal Institute of Technology, Sweden</td>
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<td></td>
<td>“Photon-counting x-ray imaging of scoliosis”</td>
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<tr>
<td>09:24-09:36</td>
<td>Tunhe Zhou, KTH Royal Institute of Technology, Sweden</td>
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<td>“Speckle-based x-ray phase-contrast imaging using a laboratory system”</td>
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<tr>
<td>09:36-10:06</td>
<td>Fabio Sauli, CERN, Switzerland</td>
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<td>“Radiation imaging with gaseous detectors”</td>
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<tr>
<td>10:06-10:36</td>
<td>Diego Gonzalez Diaz, CERN, Switzerland</td>
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<td>“High-precision tracking and imaging with MPGDs”</td>
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<tr>
<td>10:36-11:06</td>
<td>Robert Nishikawa, University of Pittsburgh, USA</td>
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<td>“Virtual imaging trials in breast cancer screening”</td>
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<tr>
<td>11:06-11:20</td>
<td>Coffee Break</td>
</tr>
<tr>
<td>11:20-11:50</td>
<td>Rolf Behling, Philips, Germany</td>
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<td>“X-ray sources now and for the future”</td>
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<td>11:50-12:20</td>
<td>Markus Strobl, ESS, Sweden</td>
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<td>“Neutron imaging - novel potentials at ESS”</td>
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<td>12:20-12:50</td>
<td>David Winn, Fairfield University, USA</td>
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<td>“Imaging x-rays and gamma-rays using stacked metal mesh dynodes and MCP”</td>
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<td>12:50-13:02</td>
<td>Rich Thomas, Stockholm University, Sweden</td>
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<td>“The DESIREE facility: imaging particles in an extreme environment”</td>
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<td>13:02-13:15</td>
<td>Conclusion of conference - Mats Danielsson, Chair Imaging 2016</td>
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