Monday 11 June

10:00 Registration opens
12:00 13:00 Lunch
13:00 13:10 Welcome: Jostein Grepstad, NTNU

Oral session 1: Nanomaterials science I
Chair: Erik Folven, NTNU
13:15 13:45 Fritz Prinz, Stanford University
Nanoscale engineered solid oxide fuel cells
13:45 14:00 Ambjørn Dahle Bang, NTNU
Controlling antiferromagnetic spins by nanostructuring
14:00 14:15 Alireza Qaiumzadeh, NTNU
All-magnonic helicity-dependent domain-wall motion in antiferromagnetic insulators
14:15 14:30 Jon Borgersen, UoO
Defect dependent conductivity in metal oxides examined by ion irradiation and in situ I-V measurements
14:30 14:45 Justas Zalieckas, UoB
Magnetic and electric field sensing using color centers in diamond
14:45 15:15 Paul Alkemade, Delft University of Technology
Lithography with swift light ions
15:15 15:45 Coffee break

Oral session 2: Bionanotechnology
Chair: Kristin Imenes, USN
15:45 16:15 Martin Peacock, Zimmer & Peacock AS
Fast tracking commercialisation of biosensors - a case study
16:15 16:45 Geir Fonnum, Thermo Fisher Scientific
Ultrafast DNA sequencing enabled by novel Ugelstad bead technology
16:45 17:00 Jakob Vinje, NTNU
Controlled surface topography and chemistry for cell studies
17:00 17:15 Poster Slam

Poster session
Chair: Jana Jágerská, UoT
17:15 19:15 Poster session with coffee and afternoon snack

20:00 Dinner at the hotel
Tuesday 12 June

Oral session 3: Nanomaterials science II

<table>
<thead>
<tr>
<th>Time</th>
<th>Speaker</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>09:15</td>
<td>John de Mello, Imperial College London / NTNU</td>
<td>Microfluidic routes to the controlled synthesis of solution-processable electronic materials</td>
</tr>
<tr>
<td>09:45</td>
<td>Einar Digernes, NTNU</td>
<td>Imaging vortex gyration in complex oxide micromagnets with sub-nanosecond time resolution</td>
</tr>
<tr>
<td>10:00</td>
<td>Naureen Akhtar, UoB</td>
<td>Wetting of surfaces and interfaces</td>
</tr>
<tr>
<td>10:30</td>
<td></td>
<td>Coffee break</td>
</tr>
<tr>
<td>11:00</td>
<td>Jan Torgersen, NTNU</td>
<td>Synchrotron based X-ray absorption near-edge structure (XANES) for revealing geometric and electronic structure of atomic layer deposited films</td>
</tr>
<tr>
<td>11:30</td>
<td>Sam Sloetjes, NTNU</td>
<td>Effects of intermagnet dipolar coupling on the dynamic properties of nanodisc arrays</td>
</tr>
<tr>
<td>11:45</td>
<td>Fredrik K. Olsen, NTNU</td>
<td>Enhanced magnetism in embedded epitaxial complex oxide micromagnets</td>
</tr>
<tr>
<td>12:00</td>
<td></td>
<td>Lunch</td>
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</tbody>
</table>

Oral Session 4: MEMS technology

<table>
<thead>
<tr>
<th>Time</th>
<th>Speaker</th>
<th>Title</th>
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</thead>
<tbody>
<tr>
<td>13:00</td>
<td>Susan Trolier-McKinstry, Penn State University</td>
<td>Energy harvesting with piezoelectric films</td>
</tr>
<tr>
<td>13:30</td>
<td>Runar Plunnecke Dahl-Hansen, NTNU</td>
<td>On the dynamics of a degrading piezoelectric micromirror operated in harsh environments</td>
</tr>
<tr>
<td>13:45</td>
<td>Asmund Sandvand, MEMSCAP AS</td>
<td>MEMS pressure sensors for aerospace applications</td>
</tr>
<tr>
<td>14:15</td>
<td>Philippe Basset, Université Paris-Est</td>
<td>MEMS architectures for the evaluation of capacitive adiabatic logic</td>
</tr>
<tr>
<td>14:45</td>
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<td>Coffee break</td>
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</tbody>
</table>

Oral session 5: Nanophotonics

<table>
<thead>
<tr>
<th>Time</th>
<th>Speaker</th>
<th>Title</th>
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</thead>
<tbody>
<tr>
<td>15:15</td>
<td>Nicolas Le Thomas, Ghent University</td>
<td>Fundamental thermodynamic noise in integrated photonic sensors</td>
</tr>
<tr>
<td>15:45</td>
<td>Karolina Milenko, NTNU</td>
<td>Fabrication of gold nanostructures for surface-enhanced Raman scattering</td>
</tr>
<tr>
<td>16:00</td>
<td>David André Coucheron, UoT</td>
<td>Comparison of Ta₂O₅ and Si₃N₄ photonic integrated circuits for optical nanoscopy and Raman spectroscopy</td>
</tr>
<tr>
<td>16:15</td>
<td>Per Öhlckers, USN</td>
<td>Packaging and demonstration of optical-fiber-coupled photodiode array for operation at 4 K</td>
</tr>
<tr>
<td>16:30</td>
<td>Jana Jágerská, UoT</td>
<td>Mid-infrared photonics for trace gas detection</td>
</tr>
<tr>
<td>17:00</td>
<td></td>
<td>Afternoon snack, grab and go</td>
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<tr>
<td>17:30</td>
<td>Meetup at hotel lobby in comfortable shoes, dressed for outdoor activity</td>
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<tr>
<td>20:00</td>
<td>Dinner at Spiseriet restaurant, Verdens Ende</td>
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<tr>
<td>23:00</td>
<td>Bus returns (appr)</td>
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## Oral session 6: Integrated circuits

<table>
<thead>
<tr>
<th>Time</th>
<th>Speaker(s)</th>
<th>Title</th>
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<tbody>
<tr>
<td>08:45</td>
<td>Alex Yakovlev, Newcastle University</td>
<td><em>Bridging asynchronous circuits and mixed-signal design</em></td>
</tr>
<tr>
<td>09:15</td>
<td>Lars Lydersen, Silicon Labs</td>
<td><em>Electrical engineering for the IoT edge node</em></td>
</tr>
<tr>
<td>09:45</td>
<td>Aaasmund Sudbø, UoO</td>
<td><em>A milestone in metrology</em></td>
</tr>
<tr>
<td><strong>10:00</strong></td>
<td><strong>10:30</strong> <strong>Coffee break and checkout</strong></td>
<td></td>
</tr>
<tr>
<td>10:30</td>
<td>Philipp Häfliger, UoO</td>
<td><em>CMOS Sequential 3D integration for mixed-signal 'circuits-in-cube'</em></td>
</tr>
<tr>
<td>11:00</td>
<td>Gunnar Mæhlum, Integrated Detector Electronics AS</td>
<td><em>Nano- and microelectronics for use in space; requirements and application examples</em></td>
</tr>
<tr>
<td>11:30</td>
<td>Wrapup and awards: Jostein Grepstad, NTNU</td>
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<tr>
<td><strong>12:00</strong></td>
<td><strong>13:00</strong> <strong>Lunch</strong></td>
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# Poster session

**Monday 11 June, 17:15 - 19:15**

## Nanomaterials science

<table>
<thead>
<tr>
<th></th>
<th>Title</th>
<th>Speaker, Institution</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Towards the development of novel carbon based materials for on-chip supercapacitor</td>
<td>Chengjun Yu, USN</td>
</tr>
<tr>
<td>2</td>
<td>Impact of hydrogen implantation on Cu$_2$O thin films for solar cell applications</td>
<td>Raj Kumar, UiO</td>
</tr>
<tr>
<td>3</td>
<td>Magnetic properties of La$<em>{0.7}$Sr$</em>{0.3}$MnO$_3$/SrTiO$_3$ (111) studied by ferromagnetic resonance</td>
<td>Suraj Singh, NTNU</td>
</tr>
<tr>
<td>4</td>
<td>Mass production of sub-10 nm asymmetric electrodes array for photodetectors by adhesion lithography via self-peeling</td>
<td>Sihai Luo, NTNU</td>
</tr>
<tr>
<td>5</td>
<td>Facile synthesis of NFL-ZnWO$_4$ for pseudocapacitor applications</td>
<td>Xiao Fan, USN</td>
</tr>
<tr>
<td>6</td>
<td>Thick anodic oxide films on 304 type stainless steel for supercapacitors</td>
<td>Yingge Wang, USN</td>
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## Integrated circuits

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<thead>
<tr>
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<tbody>
<tr>
<td>7</td>
<td>Comparative analysis of inductive and capacitive feeding of magnetic resonant wireless power system</td>
<td>Yelzhas Zhaksylyk, USN</td>
</tr>
</tbody>
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## MEMS technology

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<thead>
<tr>
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<tbody>
<tr>
<td>8</td>
<td>ACF interconnects – relation between resistance repeatability and pad surface</td>
<td>Giang Nghiem, USN</td>
</tr>
<tr>
<td>9</td>
<td>New packaging routes for medical ultrasound probes</td>
<td>Nu Bich Duyen Do, USN</td>
</tr>
</tbody>
</table>

## Nanophotonics

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<thead>
<tr>
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<tbody>
<tr>
<td>10</td>
<td>Metal nanoparticle fabricated on a waveguide – sensing with white light</td>
<td>Martin Greve, UiB</td>
</tr>
<tr>
<td>11</td>
<td>Towards on-chip Ta$_2$O$_5$-based platform for mid-infrared laser spectroscopy</td>
<td>Marek Vlk, UiT</td>
</tr>
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## Bionano technology

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<tr>
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<th>Speaker, Institution</th>
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</thead>
<tbody>
<tr>
<td>12</td>
<td>The interaction of photosensitive proteins with microfabricated sensor arrays</td>
<td>Oleksandr Dobroliubov, USN</td>
</tr>
</tbody>
</table>