ICPMAT2012 Scientific Programme

Monday 18th June

Opening ceremony (Lecture hall R5)
Chair: Randi Holmestad
0845-0915 Opening ceremony. Short greetings from some of the universities represented at ICPMAT2012.

Session 1 (Lecture hall R5)
Chair: Knut Marthinsen
0915-0945 Gary Shiflet, Reynolds Professor, University of Virginia, Charlottesville, VA, USA
“Thermodynamic conditions for the formation of metastable pearlite”
0945-1015 Yong Zou, Professor, Shandong University, Jinan, China
“Preparation Fe-Al coating by laser cladding iron and aluminum powder mixtures”
1015-1030 Coffee break

Session 2 (Lecture hall R5)
Chair: Kenji Matsuda
1030-1100 Ragnvald Mathiesen, Associate Professor, NTNU, Trondheim, Norway
“In-situ X-ray video microscopy studies of Al-Si eutectic solidification”
1100-1130 Jostein Røyset, Hydro Aluminium Research and Technology Development, Sunndalsøra, Norway
“Hydro Aluminium – company profile and research on Al-Mg-Si alloys”
1130-1200 Xuelei Tian, Professor, Shandong University, Jinan, China
“Structure of Cu-20at. % Sb and Cu-80at. % Sb melts”
1200-1300 Lunch

Session 3 (Lecture hall R5)
Chair: Gary Shiflet
1300-1330 Odd Sture Hopperstad, Professor, NTNU, Trondheim, Norway
“Material modelling at different scales for large-scale numerical simulations of aluminium structures”
1330-1400 Toshiya Shibayanagi, Professor, University of Toyama, Toyama, Japan
“Metal flow and high temperature deformation during friction stir spot welding of pure aluminium”
1400-1415 Coffee break

Parallel sessions

Session 4A (Lecture hall R5)
Chair: Ruben Bjørge
1415-1435 Kenji Matsuda, Professor, Toyama University, Toyama, Japan
“Effect of minor addition of Mn or Fe on the age-hardening in Al-Mg-Si alloys”
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<tr>
<th>Session 4B (Lecture hall R8)</th>
<th>Chair: Randi Holmestad</th>
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<td>1415-1435</td>
<td><strong>Eliška Mikmeková</strong>, Institute of Scientific Instruments of the ASCR, Brno, Czech Republic</td>
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<td>1435-1455</td>
<td><strong>Zhijiu Xing</strong>, Shanghai University, Shanghai, China</td>
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<td>1455-1515</td>
<td><strong>Norio Nunomura</strong>, Associate Professor, University of Toyama, Toyama, Japan</td>
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<td>1515-1535</td>
<td><strong>Shujuan Yuan</strong>, Associate Professor, Shanghai University, Shanghai, China</td>
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<td>1535-1555</td>
<td><strong>Jostein Bø Fløystad</strong>, NTNU, Trondheim, Norway</td>
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<td>1555-1615</td>
<td><strong>Katsuhiko Nishimura</strong>, University of Toyama, Toyama, Japan</td>
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**Session 5: Poster session**
Chair: Flemming Ehlers
1630-1800

**Tuesday 19th June**

**Session 6 (Lecture hall R5)**
Chair: Katsuhiko Nishimura

<table>
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<tr>
<th>Time</th>
<th>Speaker</th>
<th>Affiliation and Location</th>
<th>Topic</th>
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<tr>
<td>0830-0900</td>
<td><strong>Kazimierz Przybylski</strong>, Professor, AGH University of Science and Technology, Krakow, Poland</td>
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<td>“Oxidation properties of TiAl and TiAl0.8Nb at high temperature”</td>
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<td>0900-0930</td>
<td><strong>Zenji Horita</strong>, Professor, Kyushu University, Fukuoka, Japan</td>
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<td>“High-pressure torsion for production of bulk nanostructured materials”</td>
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0930-1000 Sotomi Ishihara, Professor, University of Toyama, Toyama, Japan
“Bending fatigue behavior of carbon fiber reinforced plastic”

1000-1030 Guanghui Min, Professor, Shandong University, Jinan, China
“Surface modification of nanosized LaB$_6$ particles using silane coupling”

1030-1045 Coffee break

Session 7 (Lecture hall R5)
Chair: Yong Zou
1045-1115 Maxim Morozov, NTNU, Trondheim, Norway
“Lead-free ferroelectric ceramics”

1115-1145 Calin Marioara, Research Scientist, SINTEF Materials and Chemistry, Trondheim, Norway
“HAADF-STEM investigations of metastable precipitates in a commercial Al-Mg-Zn-Cu alloy”

1145-1215 Marisa Di Sabatino, Associate Professor, NTNU, Trondheim, Norway
“Crystallization, defects and characterization of solar cell silicon – review of the research work at NTNU”

1215-1330 Lunch, including taking of a group photo

Session 8 (Lecture hall R5)
Chair: Shixun Cao
1330-1400 Makoto Shiojiri, Professor Emeritus, Kyoto Institute of Technology, Kyoto, Japan
“Scattering of electrons and photons – HAADF-STEM and colouration of butterfly scales”

1400-1430 Francis Pratt, ISIS Facility, Rutherford Appleton Laboratory, Didcot, UK
“$\mu$SR spectroscopy techniques for advanced materials research”

1430-1500 Williams Lefebvre, Université de Rouen, Saint Etienne de Rouvray, France
“Advanced characterization by scanning transmission electron microscopy and atom probe tomography”

1500-1515 Coffee

Session 9 (Lecture hall R5)
Chair: Kazimierz Przybylski
1515-1545 Tom Henning Johansen, Professor, University of Oslo, Oslo, Norway
“Avalanche dynamics in superconducting films”

1545-1615 Shixun Cao, Professor, Shanghai University, Shanghai, China
“Structural transition induced large magnetocaloric effect in Dy$_{1-x}$Ho$_x$MnO$_3$ system”

1615-1645 Thomas Tybell, Professor, NTNU, Trondheim, Norway
“Thin film epitaxy: A key to oxide electronics”

1645-1700 Summary and announcement of next ICPMAT