

PROGRAMME

**of the Seminar and Workshop
„Applications of Superconductors”**

Nałęczów 23 - 26. 06. 2004

23.06.04 Wednesday	
18.00	Registration of the participants in the ENERGETYK Centre in Nałęczów
19.00	Dinner
24.06.04 Thursday	
8.00	Breakfast
9.00 – 9.15	Tadeusz Janowski <i>Opening of the Seminar „Applications of Superconductors”</i>
9.15 – 11.00	<p>Session S1 SUPERCONDUCTING MATERIALS – PART 1</p> <ol style="list-style-type: none"> Jan Leszczyński <i>Transformation of the central current in the cylindrical superconductor</i> Michał Mosiądz <i>Sensor of the screening properties of high temperature superconductors</i> Krzysztof Woźniak <i>Critical current density in the high temperature superconducting ring</i> Marcin Lebioda <i>Field- current relaxation in the superconducting ring</i> Jacek Rymaszewski <i>Microscopic phenomena in the metal-superconductor contact</i>
11.00 – 11.15	Coffee break
11.15 – 13.30	<p>Session S2 SUPERCONDUCTING MATERIALS – PART 2</p> <ol style="list-style-type: none"> Bartek A. Głowacki <i>Pinning mechanism of Nb-based A15 conductors for high magnetic field and high current applications</i> Antoni Cieśla <i>High temperature superconductor BSCCO-Ag in the application to magnetic field excitation in separator with magnetic core</i> Marcin Lebioda <i>Magnetisation of the ferromagnetic core in the superconducting ring system</i> Jan Ziaja, Bolesław Mazurek <i>Critical parameters of the superconducting high temperature ceramics $YBa_2Cu_3O_{7-x}$ doped by ZrO_2</i> Ewa Korzeniewska <i>Superconductor in the asymmetric magnetic field</i>
14.00	Lunch
15.00 – 16.30	<p>Session S3 SUPERCONDUCTING MATERIALS – PART 3</p> <ol style="list-style-type: none"> Jacek Sosnowski <i>Analysis of the structural defect influence on the critical current and pinning forces of the high-T_c superconducting tapes</i> Andrzej Morawski <i>Nano SiC doping of MgB_2 bulk made by high inert gas pressure mixing and isostatic sintering</i> Jan Ziaja, Bolesław Mazurek <i>Physico-chemical properties of superconducting ceramics $YBa_2Cu_3O_{7-x}$ doped by $m-ZrO_2$</i> Ewa Korzeniewska <i>Influence of the superconductor macrostructure parameters on the magnetization characteristics.</i>
16.30 – 16.45	Coffee break
16.45 – 18.00	<p>Session S4 SUPERCONDUCTING DEVICES – PART 1</p> <ol style="list-style-type: none"> Gordon Donaldson <i>Application of SQUIDS to non-destructive evaluation with neural networks</i> Sławomir Kozak <i>Electro-thermal numerical model of resistive SFCL</i> Beata Kondratowicz-Kucewicz <i>Magnetic energy storages with HTS windings</i> Grzegorz Wojtasiewicz <i>Analysis of the operating current influence on magnetic flux density distribution in superconducting and copper windings</i>
20.00	Dinner

25.06.04 Friday

8.30	Breakfast
9.30 – 11.00	<p>Session S5 SUPERCONDUCTING DEVICES – PART 2</p> <ol style="list-style-type: none"> Bronisław Susła <i>Electrical properties of carbon nanotubes</i> Gordon Donaldson <i>SQUID applications</i> Henryk Malinowski <i>Superconducting magnet cooled by cryocooler for ion source DECRIS-SC</i> Paweł Surdacki <i>Influence of resistive zone propagation conditions on the superconducting coil operational stability</i>
11.00 – 11.15	Coffee break
11.15 – 12.30	<p>Session S6 SUPERCONDUCTING DEVICES – PART 3</p> <ol style="list-style-type: none"> Jan Sykulski <i>Power applications of high temperature superconductivity: achievements and challenges</i> Dariusz Czerwiński <i>Numerical model of magnetic hysteresis in high temperature superconductors</i> Michał Łanczont <i>Three-phase current limiter with two superconducting elements – operational model</i> Janusz Kozak <i>The influence of core parameters on the inductive superconducting fault current limiters' operation</i> Joanna Pawłat <i>Research on plasma technologies at Saga University in Japan</i>
13.00	Lunch
14.00 – 17.00	<p>Session W1 SUPERCONDUCTING MATERIALS AND DEVICES – PART 1</p> <ol style="list-style-type: none"> Łukasz Burdzanowski, Robert Leszczyński <i>Magnetic levitation – model of the railway</i> Bartek A. Glowacki <i>AC conductors for applications</i> Jan Leszczyński <i>Maxwell's equations in the macroscopic theory of superconductivity</i> Henryka Danuta Stryczewska, Kenji Ebihara <i>Research on superconductivity and plasma technologies in Endowed Chair on Advanced Technology for Electrical Energy of Kumamoto University</i>
18.00	Dinner

26.06.04 Saturday

8.30	Breakfast
9.30 – 13.00	<p>Session W2 SUPERCONDUCTING MATERIALS AND DEVICES – PART 2</p> <ol style="list-style-type: none"> Jacek Sosnowski <i>Selected models of the high temperature superconducting state</i> Henryk Malinowski <i>Electric supply and protection of superconducting system DECRIS-SC</i> Daniel Gajda <i>Influence of superconducting coil parameters on magnetic field heterogeneity</i> Anna Poznańska <i>Calculation of forces acting in hybrid magnetic bearing</i> Joanna Kacprzak <i>The application of sensors in electrical and medical metrology.</i> Krzysztof Janus <i>Transition current determining in superconducting materials</i> Paweł Jaszczuk <i>Measurements of cryogenic temperatures</i>
14.00	Seminar and Workshop Closing Lunch