

Conference Program

13th International Conference on Ion Sources (ICIS'09)
September 20-25, 2009, Gatlinburg, TN, USA

SUNDAY, September 20, 2009	
18:30	Registration and Welcome Reception
MONDAY, September 21, 2009	
8:30 – 10:10	Welcome and Opening Remarks – Continental Breakfast Provided <i>Chair: G. Ciavola, INFN-LNS, Italy</i>
8:30 – 8:40	Welcome by Ian Anderson, Director, Neutron Science Directorate, ORNL
8:40 – 9:20	New Frontiers in Neutron Sciences <i>Ian Anderson, ORNL, USA</i>
9:20 – 10:00	Summary of Current and Future Developments Highlighted at the ECRIS08 <i>R. C. Vondrasek, ANL, USA</i>
10:00 – 10:10	Introduction of the Conference Sponsors <i>R. Welton, ORNL, USA</i>
10:10 – 10:30	Break
10:30 – 12:10	Plenary Session: ECR Ion Sources I <i>Chair: D. Leitner, LBNL, USA</i>
10:30 – 11:00	First Results from the New RIKEN Superconducting ECR Ion Source <i>Takahide Nakagawa, RIKEN, Japan</i>
11:00 – 11:30	Review on Applications of ECR Ion Sources <i>Antonio Villari, PANTECHNIK, France</i>
11:30 – 11:50	High Charge State Ion Beam Production on SECRAL <i>Liangting Sun, Institute of Modern Physics, CAS, China</i>
11:50 – 12:10	The Superconducting ECR ion Source SUSI for the Coupled Cyclotron Facility (CCF) at NSCL <i>Guillaume Machicoane, Michigan State University, USA</i>
12:00 – 13:30	Working Lunch – Discussion on ECR Ion Source Papers
13:30 – 15:40	Plenary Session: ECR Ions Sources II <i>Chair: R. Leroy, GANIL, France</i>
13:30 – 14:00	Microwave to Plasma Coupling in ECR and Microwave Ion Sources <i>Luigi Celona, INFN-LNS, Italy</i>
14:00 – 14:20	Status Report of the Heavy Ion Source R&D for Spiral-2 <i>Thomas Thuillier, LPSC, France</i>
14:20 – 14:40	3D Simulations of Ion Dynamics in an Electron Cyclotron Resonance Ion Source <i>Hans Beijers, University of Groningen, The Netherlands</i>

14:40 – 15:00	Creation of Short Pulsed Multicharged Ion Beam <i>Vladimir Zorin, Institute of Applied Physics, Russian Academy of Sciences, Russia</i>
15:00 – 15:20	<u>Parameters Affecting the Hollow Beam Structure in ECR Ion Sources</u> <i>Hannu Koivisto, Department of Physics, University of Jyväskylä, Finland</i>
15:20 – 15:40	<u>Nb₃Sn Superconducting Magnets for ECR Ion Sources</u> <i>Paolo Ferracin, LBNL, USA</i>
15:40 – 18:00	Poster Session: ECRIS, EBIS/T, Laser, and MEVVA Ion Sources
TUESDAY, September 22, 2009	
8:30 – 10:00	Plenary Session: EBIS/EBIT, Laser, and MEVVA Ion Sources <i>Chair: V. Ovsyannikov, DREBIT, Germany - Continental Breakfast Provided</i>
8:30 – 9:00	A Review of the Latest EBIS and EBIT Devices <i>Reinard Becker, J.W.Goethe University of Frankfurt, Germany</i>
9:00 – 9:20	Initial Operation of the BNL EBIS for RHIC <i>James Alessi, BNL, USA</i>
9:20 – 9:40	<u>High-Charge-State Metal-Ion Beams Based on a Vacuum Spark Discharge</u> <i>Efim Oks, LBNL, USA</i>
9:40 – 10:00	<u>Generation of High Currents of Carbon Ions with the Use of a Sub-nanosecond NIR Laser Pulses</u> <i>Josef Krasa, Institute of Physics, Academy of Science, Czech Republic</i>
10:00 – 10:30	Break
10:30 – 12:20	Plenary Session: Laser and Negative Ion Sources <i>Chair: Y. Liu, ORNL, USA</i>
10:30 – 11:00	<u>The Development of Resonant Ionization Laser Ion Sources</u> <i>Jens Lassen, TRIUMF, Canada</i>
11:00 – 11:20	<u>LIST- Laser Ion Source and Trap for Highest Isobaric Selectivity</u> <i>Klaus Wendt, University of Mainz, Germany</i>
11:20 – 11:40	3D Modeling of the EEDF in Negative Hydrogen Ion Sources <i>Ryo Terasaki, Keio University, Japan</i>
11:40 – 12:00	<u>Simulations of Negative Ion Plasma Sheath and Beam Extraction</u> <i>Marco Cavenago, INFN-LNL, Italy</i>
12:00 – 12:20	RF Developments for SNS H⁻ Ion Source <i>Yoon Kang, ORNL, USA</i>
12:10 – 13:30	Working Lunch – Discussion on Laser and Negative Ion Sources
13:30 – 15:30	Plenary Session: Negative Ion Sources <i>Chair: R. Gobin, CEA/Saclay, France</i>
13:30 – 14:00	<u>A Review of High-Intensity Ion Sources for Accelerators with Emphasis on H⁻ Beam Formation and Transport</u> <i>Roderich Keller, LANL, USA</i>

14:00 – 14:30	<u>Interesting Experimental Results in J-PARC H⁻ Ion Source Development</u> <i>Akira Ueno, J-PARC, Japan</i>
14:30 – 14:50	<u>The Front End Test Stand High Performance H⁻ Ion Source at RAL</u> <i>Dan Faircloth, RAL, UK</i>
14:50 – 15:10	SNS Saddle Antenna H⁻ Ion Source Project <i>Vadim Dudnikov, Muons, Inc., USA</i>
15:10 – 15:30	<u>Aberration of a Negative Ion Beam Caused by Space Charge Effect</u> <i>Kenji Miyamoto, Naruto University of Education, Japan</i>
15:30 – 18:00	Poster Session: Negative Ion Sources, Radioactive Beams and Charge Breeding, Ion Sources for Fusion
WEDNESDAY, September 23, 2009	
8:00 – 18:30	Excursion: Smokey Mountain and ORNL Tour
12:40 – 13:00	Working Lunch at ORNL: The Past, Present, and Future of Oak Ridge National Laboratory <i>Michelle Buchanan, Associate Laboratory Director for the Physical Science Directorate, ORNL, USA</i>
13:00 – 13:40	<u>Ramping Up the SNS Accelerator to 1 MW with the H⁻ Source Using 0 mg Cs/day</u> <i>Martin Stockli, ORNL, USA</i>
THURSDAY, September 24, 2009	
8:30 – 10:00	Plenary Session: Radioactive Beams and Charge Breeding <i>Chair: D. May, Texas A&M University, USA - Continental Breakfast Provided</i>
8:30 – 9:00	<u>Opportunities and Challenges for the Next Facility for Rare Isotope Beams</u> <i>Stefan Schwarz, Michigan State University, USA</i>
9:00 – 9:20	<u>Charge State Breeding for the Acceleration of Radioactive Ions at TRIUMF</u> <i>Friedhelm Ames, TRIUMF, Canada</i>
9:20 – 9:40	<u>Development of High Efficiency Versatile Arc Discharge Ion Source (VADIS) at CERN ISOLDE</u> <i>Liviu C. Penescu CERN, Switzerland</i>
9:40 – 10:00	Long Pulse H⁻ Ion Beam Acceleration in MeV Accelerator <i>Masaki Taniguchi, Japan Atomic Energy Agency, Japan</i>
10:00 – 10:30	Break
10:30 – 12:20	Plenary Session: Ion Sources for Fusion <i>Chair, R. Hemsworth, ITER Organization, France</i>
10:30 – 11:00	<u>Negative ion Source Development for Fusion Application</u> <i>Yasuhiko Takeiri, National Institute for Fusion Science, Japan</i>
11:00 – 11:30	<u>Analyses of High Power Negative Ion Accelerators for ITER NBI</u> <i>Mieko Kashiwagi, Japan Atomic Energy Agency, Japan</i>

11:30 – 12:00	Achievement and Improvement of the JT-60U Negative Ion Source for JT-60 Super Advanced <i>Atsushi Kojima, Japan Atomic Energy Agency, Japan</i>
12:00 – 12:20	<u>Long Pulse H⁺/D⁻ Beam Extraction with an RF Driven Ion Source on a High Power Level</u> <i>Werner Kraus, Max-Planck-Institut für Plasmaphysik, Germany</i>
12:10 – 13:30	Working Lunch - Discussion on Ion Sources for Fusion
13:30 – 15:30	Plenary Session: Miscellaneous Ion Sources Chair: D. Mous, High Voltage Engineering Europa, The Netherlands
13:30 – 14:00	<u>Review on High-Current 2.45 GHz ECR Sources</u> <i>Santo Gammino, INFN-LNS, Italy</i>
14:00 – 14:30	Review on Polarized Ion Sources <i>Anatoli Zelenski, BNL, USA</i>
14:30 – 14:50	<u>Ultra compact / Ultra low Power ECRIS for Multi-purpose Applications</u> <i>Pascal Sortais, LPSC/IN2P3/CNRS, France</i>
14:50 – 15:10	<u>Self-Sputtering Ion Source: A New Approach to Quiescent Metal Ion Beams</u> <i>Efim Oks, LBL, USA</i>
15:10 – 15:30	Energy Spread Reduction Using a Laser-Cooled Ion Source <i>Merijn Reijnders, Eindhoven University of Technology, The Netherlands</i>
16:00 – 18:00	Poster Session: Miscellaneous Ion Sources; Applications; Theory, Fundamentals, Beam Extraction, -Transport, and -Handling, and Diagnostics
18:30	Banquet with presentation of the Brightness Award The Significance and Selection of the Brightness Award <i>R. Alonso, Sanford Lab at Homestake, USA</i>
FRIDAY, September 25, 2009	
9:00 – 10:00	Plenary Session: Brightness Award Talks Chair: Richard Pardo, ANL, USA - Continental Breakfast Provided
9:00 – 9:05	Introduction by the Chair, <i>Richard Pardo, ANL, USA</i>
9:05 – 9:35	<u>Talk by Recipient 1</u>
9:35 – 10:00	<u>Talk by Recipient 2</u>
10:00 – 10:30	Break
10:30 – 12:10	Plenary Session: Applications Chair: .R. Alonso, Sanford Lab at Homestake, USA

10:30 – 11:00	Review of Ion Sources for Medical Accelerators <i>Atsushi Kitagawa, National Institute of Radiological Sciences, Japan</i>
11:00 – 11:30	Current Capabilities and Future Needs for Semi Conductor Ion Implantation <i>Tony Renau, Varian Semiconductor Equipment Associates, Inc., USA</i>
11:30 – 11:50	Sealed Operation of an RF Driven Ion Source for a Compact Neutron Generator <i>Ying Wu, LBL, USA</i>
11:50 – 12:10	Liquid Cluster Ion Source for Surface Treatment <i>Hiromichi Ryuto, Kyoto University, Japan</i>
12:00 – 13:30	Working Lunch – Discussion of Applications of Ion Sources
13:30 – 15:50	Plenary Session: Theory, Fundamentals, Beam Extraction, -Transport, -Handling, and Diagnostics <i>Chair: G. Zschornak, Dresden University of Technology, Germany</i>
13:30 – 14:00	A Review and Preview of High Power / High Current Accelerators <i>Stuart Henderson, ORNL, USA</i>
14:00 – 14:30	Transporting High-Current Beams <i>Oliver Meusel, J.W.Goethe University of Frankfurt, Germany</i>
14:30 – 14:50	Model for the Description of Ion Beam Extraction from ECR Ion Sources <i>Peter Spädtke, GSI Darmstadt, Germany</i>
14:50 – 15:10	IBSimu — A Three-Dimensional Simulation Software for Charged Particle Optics <i>Taneli Kalvas, University of Jyväskylä, Finland</i>
15:10 – 15:30	The Deuteron Injector Development for the PKUNIFTY Project <i>Shixiang Peng, Peking University, China</i>
15:30 – 15:50	Drift Distance Survey in DPIS for High Current Beam Production <i>Takeshi Kanetsue, BNL, USA</i>
15:50 - 16:00	Closing Remarks