17th International Conference on Ion Sources

Sunday 15 October 2017 - Friday 20 October 2017

CERN

Scientific Programme
Fundamental processes

**Monday 16 October**

**16:00-16:20** S. Gammino-IFN-**"Commissioning of the AISHA (Advanced Ion Source for Hadrontherapy) Ion Source"**

**Tuesday 17 October**

**08:30-09:00** M. Wada-DOSHISHA UNIV.-**"Plasma-surface interaction in negative hydrogen ion sources"**

**09:00-09:30** K. Tsumori-NIFS-**"Flow patterns of H- ions measured with Directional Photodetachment Langmuir Probe"**

**09:30-09:50** G.Castro-INFN-LNS-**"Plasma diagnostics update and consequences on the upgrade of existing sources"**

**09:50-10:10** J. Laulainen-JYVASKYLÀ UNIV.-**"Photoelectron Emission Induced by Low Temperature Hydrogen Plasmas"**

**15:40-16:00** F. Taccogna-CNR-**"Particle-based model of plasmadynamics in ITER-prototype negative ion source"**

Negative ion sources

**Monday 16 October**

**15:00-15:20** S. Briefli-AUGSBURG-UNIV.-**"Experimental benchmark of the EM-PIC-MCC code NINJA and its application for simulating the Linac4 H^-$ ion source plasma"**

**15:20-15:40** R. Welton-ORNL-**"Status of the New SNS Injector and External Antenna Ion Source"**

**Wednesday 18 October**

**15:00-15:20** A. Garcia Sosa-FNAL-**"Implementation of Design Changes Towards a More Reliable, Hands-off Magnetron Ion Source"**

**15:40-16:00** A.Zelenski-BNL-**"The RHIC polarized H- ion source"**

Radioactive ion beams, charge breeders and polarized beams

**Tuesday 17 October**

**14:00-14:30** R. Vondrasek-ANL-**"Charge Breeding of Radioactive Isotopes at the CARIBU Facility"**
Beam extraction, transport, and diagnostics

**Tuesday 17 October**

**11:00-11:30** D. Wunderlich-IPP Garching-**Review of PIC modelling for the extraction region of large negative hydrogen ion sources**

**11:30-11:50** Y. Belchenko-BINP-**RF driven Multiaperture Surface-Plasma Negative Ion Source: Beam Formation and Transport via the LEBT**

**11:50-12:10** E. Sartori-PADOVA UNIV.-**First measurements of beam plasma in NIFS test stand**

**Wednesday 18 October**

**10:10-10:30** S. Ikeda-BNL-**Investigation of laser energy absorption by ablation plasmas**

**14:30-15:00** T. Kalvas-JYVASKYLÄ UNIV.-**New challenges in ion beam extraction modelling**

**15:20-15:40** T. Nagatomo-RIKEN-**Residual Gas Effect in LEBT on Transverse Emittance of Multiply-Charged Heavy Ion Beams Extracted from ECR Ion Source**

Production of high intensity ion beams

**Wednesday 18 October**

**08:30-09:00** S. Steinke-LBNL-**Direct laser ionization and acceleration using PW lasers**

**09:00-09:30** Y. Zhao-IMP-**Superconducting ECR ion source: from 24-28 GHz SECRAL to 45 GHz FECR**

**09:50-10:10** L. Celona-INFN-LNS-**High intensity proton source and LEBT for the European Spallation Source**

Production of highly charged ion beams

**Monday 16 October**

**11:00-11:30** T.Thuillier-CNRS-**Prospect for a multicharged ECR ion source operated at 60 GHz**

**11:30-11:50** E. Beebe-BNL-**The Extended EBIS Intensity Upgrade at Brookhaven National Laboratory**

**11:50-12:10** E. Donets-JINR-**Status report on development and commissioning of new Electron String Ion Source (ESIS) Krion-6T**

**12:10-12:30** D.Xie-LBNL-**Recent Production of Ultra-High Charge State Ion Beams with
VENUS**

**Wednesday 18 October**

**14:00-14:30** A. Adonin-GSI-**“Progress on the MEVVA source VARIS at GSI”**

**14:30-15:00** O. Tuske-CEA SACLAY-**“Commissioning of the ECR Ion Source of the High Intensity Proton Injector of the Facility for Anti Proton and Ion Research at CEA-Saclay”**

Applications and related technologies

**Tuesday 17 October**

**10:10-10:30** J. Guo-IMP-CAS-**“45 GHz microwave power transmission and coupling scheme study with superconducting ECR ion source at IMP”**

**Wednesday 18 October**

**11:30-11:50** A. Kitagawa-QST-**“Status of ion sources at The National Institutes for Quantum and Radiological Science and Technology (QST)”**

**11:50-12:10** T. Stora-CERN-**“Ion sources for medical radioisotopes produced by electromagnetic mass separation at CERN-MEDICIS”**

**12:10-12:30** K. Rittenhouse-PNL-**“Industrial Applications of ECR-Based Neutron Generators”**

**Thursday 19 October**

**08:30-09:00** A. Pikin-BNL-**“Generation of magneto-immersed electron beams”**

**09:00-09:20** J. van Kan-Physics NUS-**“Design optimization of the nano-aperture ion source for proton beam writing applications”**

Ion sources for fusion

**Monday 16 October**

**9:10 - 9:30** W. Kraus-IPP-**“Deuterium results at ELISE”**

**9:40 - 10:10** M. Kashiwagi-QST-**“Achievement of 1 MeV beam accelerations for 60 s toward high power NBIs”**

**10:10 - 10:30** A. Simonin - CEA-**“Ongoing R&D towards a new generation of neutral beam heating systems for future fusion reactors”**

**Tuesday 17 October**

**12:10-12:30** K. Ikeda-NIFS-**“First Results of Deuterium Beam Operation on Neutral Beam Injectors in the Large Helical Device”**

**15:00-15:20** U. Fantz-IPP-**“Improved Understanding of the Caesium Dynamics in Large H Sources by Combining TDLAS Measurements and Modelling”**
**15:20-15:40** R. Agnello-EPFL-"The RAID experiment for the investigation of negative ion physics for fusion applications"