



PROGRAMME

International “Conference of Cryogenics and Refrigeration Technology” Bucharest June 22 – 25, 2016



WEDNESDAY, JUNE 22, 2016

18:00 – 19:00 REGISTRATION

19:00 – 21:00 Welcome Reception, Salon Capitol

THURSDAY, JUNE 23, 2016

ORAL SESSIONS

- 9:00 **OPENING** – Hotel Capitol, Salon Luvru
President of ICCRT Organizing Committee Prof. Liviu Drughean PhD
IIR / IIF France Director Didier Coulomb
- 9:30 **Cryogenics for large particle accelerator projects**, Dr.Philippe Lebrun – Keynote Speaker
- 9:45 **LHC Cryogenics at CERN, operation and maintenance results of the past decade and plans for the coming ones** -
Mr.Serge Claudet
- 10:00 **President of ICCRT Scientific Committee**, Prof.Boris Rubinsky PhD, Keynote Speaker
- 10:20 Acad. A.S.T.R. – Prof.dr. Marius Peculea
- 10:40 **Cooling of Electronics with Micro Refrigerant Cooling Systems** – Prof.John Thome, Keynote, Speaker
- 11:00–11:30 **COFFEE BREAK**
- 11:30 **Benefits and Challenges of mobile Microelectronics Thermal Management: New Figure of Merit and overview of various Cooling Technologies** - Victor Chiriac PhD, Keynote Speaker
- 11:50 **Equipment for distribution and storage of cryogenic liquids Chart Ferox a.s** Mr. Tomas Knobloch
- 12:05 **High technology cryosurgery: a 2016 up to date** -Dr. Franco Lugnani, Keynote Speaker
- 12:25 Dr. Ales Srnka –President Com.A1 IIR/IIF, Member of ICCRT Scientific Committee
- Effect of superconductivity on microscale radiative heat transfer** – Mr. Tomas Kralik
- 12:45 **From Equilibrium Thermodynamics to Finite Dimensions Non Equilibrium Thermodynamics for Refrigerating Machines**
Prof. Emerite Michel Feidt, Keynote Speaker
- 13:00–14:00 **LUNCH BREAK**
- 14:00 **Cryogenic distillation activities at KIT-TLK in support of ITER ISS design** - Dr. Ion Cristescu Keynote Speaker
- 14:15 **An experimental study of two-phase pressure drop of liquid nitrogen in circular horizontal channels** – Mr. Xingya Chen
- 14:30 **An Overview and Comparison of Various Refrigeration Methods for Microelectronics Cooling** -Victor Chiriac PhD
- 14:45 **Developments in Transport Refrigeration Systems using Liquid Nitrogen Expansion and Mechanical Vapour Compression** - Mr. Paul Metcalf
- 15:00 **Lessons learned in design phase of Cernavoda Tritium removal facility based on LPCE and criogenic distillation.**
Mr. Liviu Stefan.
- 15:30-16:00 **COFFEE BREAK**
- 16:00 **Design of the 80 K helium circulation loops for ITE** – Mrs. Delphine Pichot
- 16:15 **Optimal design of a thermodynamic control system for cryogenic propellant storage** –Mr. Samuel Mer/ Mr. Jean Paul Thibault
- 16:30 **Ultra fast freezing of warm product using cryogenic slush** – Mr. Didier Pathier
- 16:45 **Thermodynamic analysis of a J-T heat exchanger used in G-M/J-T helium refrigerator for a cryo-adsorption test facility**
Mr. Changcheng Ma
- 17:00 **Falling film flow and evaporation characteristics at shell-side of spiral wound heat exchanger under different conditions**
Mr. Haitao Hu
- 17:15 **Biogas purification and liquefaction by means of a cryogenic upgrading process** – Mr. Marco Spitoni
- 19:00-23:00 **GALA DINNER** – Hotel Capitol, Salon Capitol

POSTER SESSION

- ❖ **Cryogenic Calibration Facility for Supercritical Helium Venturi Flowmeter** - Mr. Zhigang Zhu.
- ❖ **Heat transfer and pressure drop characteristics of wet air flow in metal foam under dehumidifying condition,**
Mr. Haitao Hu
- ❖ **Cryogenic Cooling System Brayton for 10 J/10 Hz Yb:YAG multi-slab based laser system at ELI-Beamlines project-**
Mr. Vladislav Palsil
- ❖ **Helium management concept for the ITER cryogenic system**
Mr. Grigory Kouzmenko
- ❖ **A thermal performance analysis for multilayer insulation used in cryogenic equipment applications,**
Mr. Stefan-Ionut Spiridon
- ❖ **Materials and components in cryogenic distillation,**
Mr. Sebastian Brad
- ❖ **Electronic transport properties of NBTI in cooper matrix superconducting wir,** Mrs. Iuliana Picioarea
- ❖ **Low Temperature Measurements of the Hard Magnetic Materials,** Mr. Marian Grigoras
- ❖ **Cryogenic systems in MuSun experiment** - Mr. Ivshin Kuzma.



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FRIDAY, JUNE 24, 2016

ORAL SESSIONS

- 9:00 **Member of Scientific Committee and Honorary President of AFCR - Prof Florea Chiriac PhD.**
9:25 **Cooling Unit for the AmpaCity Project – Two Years Successful Operation- Dr.ing.Friedhelm Herzog**
9:40 **Numerical investigation of R-134a ejector**
Simulation of R718 flash boiling flow inside motive nozzle of ejector
Mr. Riccardo Mereu
- 10:10 **Experimental study of a pulse tube cold head driven by a low frequency thermal compressor- Mr. Xiaotao Wang**
10:25 **Additive manufactured flat-panel cryogenic gas-gap heat switch – Mr. Srinivas Vanapalli**
10:40 **Cryogenic temperature nanosensor – Mr. Eusebiu Ionete**
- 11:00–11:30 **COFFEE BREAK**
- 11:30 **Status of the NICA cryogenics at JINR – Mrs. Iuliia Mitrofanova**
11:45 **Creation of cryogenic testing bench for superconducting magnets of NICA and SIS100 projects –Mr Nikiforov Dmitry**
12:00 **Cooling characterization of conceptual Joule- Thomson cryogenic cooler – Mr. Abdullah Berkan Erdogan**
12:15 **Nitrogen refrigerators for the ITER cryogenic system – Mr. Simon Saulquin**
12:30 **Energy saving technologies in installations for light inert gases production – Mr. Glib Bashkirov**
12:45 **Small-scale vortex tubes in cryogenics – Mr. Dmytro Tyshko**
13:00 **Cryopreservation: methods. equipment and critical concerns – Mr. Hussam Jouhara / Mrs. Theodora Nannou**
13:20 **Closing Sessions ICCRT 2016**
- 13:30–14:30 **LUNCH BREAK**
- 15:30–20:30 **TECHNICAL TRIP – at Linde Hydrogen Plant, Petrobrarzi Ploiesti**

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- ❖ **Electronic transport properties of NBTI in cooper matrix superconducting wire, Mrs. Iuliana Picioarea**
- ❖ **Low Temperature Measurements of the Hard Magnetic Materials, Mr. Marian Grigoras**
- ❖ **Cryogenic systems in MuSun experiment, Mr. Ivshin Kuzma.**

SATURDAY, JUNE 25, 2016

- 8:00-18:00 **TOURISTIC JOURNEY – Prahova Valley Trip, with tourist attractions visited:**
- ❖ **Peles Castle Museum: built 1873 - 1914 at Sinaia, a former summer residence of the Royal Romanian Dynasty of Hohenzollern. (Ticket entrance included)**
 - ❖ **Lunch**
 - ❖ **Bran Castle Museum: The place where the history and myth of novel "Dracula" merged into mysterious and fascinating story. (Ticket entrance included)**

Thank you for your participation,



ICCRT 2016 Organizing Committee

Domneasca street, Corp G
Galati, Romania
Phone: +40 236 312437
Fax: +40 236 463059
Email: iccrt2016@criofrig.ro
<http://iccrt2016.criofrig.ro/>