

**Tuesday - October 5, 2021****CEST timezone / Prague, Europe**

12:30	13:00	OPENNING SESSION / <i>Václav Chrz, Ziad Melhem, Didier Coulomb, Ralf Herzog</i>			
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I / Cryogenics in Particle PhysicsChairs: *Ralf Herzog, Vojtěch Kohut*

13:00	13:20	0054	FINAL COMMISSIONING AND FIRST OPERATIONAL EXPERIENCE WITH THE HELIUM CRYOGENIC SYSTEM FOR THE HIE-ISOLDE PROJECT INCLUDING FOUR RF CRYO-COOLING DOWN AND PARAMETERS DURING THE FIRST SESSION OF THE BOOSTER SYNCHROTRON NICA COMPLEX.	Olivier	Pirotte	CERN	Switzerland
13:20	13:40	0027	CONCEPT DESIGN OF CRYOGENIC SYSTEM OF THE SPD-DETECTOR FOR NICA PROJECT IN DUBNA	Vladislav	Mamedov	Bauman Moscow State Technical University	Russia
13:40	14:00	0005	CRYOGENICS AND PURIFICATION SYSTEMS OF THE ICARUS T600 DETECTOR INSTALLATION AT FERMILAB	Michael	Geynisman	Fermi National Accelerator Laboratory	USA
14:00	14:20	0039	CRYOGENICS FOR QUANTUM PHYSICS	Ziad	Melhem	Oxford Quantum Solutions	United Kingdom
14:20	14:40	INVITED LECTURE					
14:40	15:00		POSTER SESSION - SECTION A1 / In brief by <i>Tomáš Králík</i> See the poster presentations and vote for your favorite contribution (voting closes on Thursday 10 a.m. CEST)				

II / Superconductivity and MagnetsChairs: *Ziad Melhem, Andreas Kade*

15:00	15:20	0003	REQUIREMENTS FOR FFS SC MAGNETS CRYOGENIC SYSTEM	M.	Stolyarov	NRC "Kurchatov Institute"	Russia
15:20	15:40	0033	CRYOGENIC TEST OF THE FIRST-OF-SERIES (FOS) SUPERCONDUCTING SHORT MULTIPLY FOR SUPER-FRS AT FAIR	Yu	Xiang	GSI	Germany
15:40	16:00	0028	EFFICIENT RECUPERATIVE 4-QUADRANT POWER SUPPLY FOR SUPERCONDUCTING SOLENOIDS	Norbert	Gust	ILK Dresden	Germany
16:00	16:20	0021	COOLING OF LONG SUPERCONDUCTING CABLES WITH LIQUID NITROGEN	Herzog	Friedhelm	Messer SE	Germany
16:20	16:40		POSTER SESSION - SECTION A1 / In brief by <i>Pavel Urban</i> See the poster presentations and vote for your favorite contribution (voting closes on Thursday 10 a.m. CEST)				

III / Cryocoolers

Chairs: *Vojtěch Kohut, Ralf Herzog*

16:40	17:00	0024	SELECTION CRITERIA FOR COMPACT CRYCOOLERS	Tonny Benschop	Thales Cryogenics	Netherlands
17:00	17:20	0007	ORIENTATION DEPENDENCE OF COOLING PERFORMANCE IN TILTED 4 K PULSE TUBE COOLERS	Jack-Andre Schmidt	Justus-Liebig-University Giessen, Germany & TransMIT GmbH	Germany
17:20	17:40	0010	NUMERICAL ESTIMATION OF PISTON'S OVERLEAKS IMPACT ON MICROCRYOCOOLER EFFICIENCY	Natalia Shishova	Bauman Moscow State Technical University	Russia

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IV / Space Cryogenics

Chairs: *Gregor Trommler, Martin Lánský*

12:45	13:00		POSTER SESSION - SECTION A2 / In brief by <i>David Ascic</i>			
See the poster presentations and vote for your favorite contribution (voting closes on Thursday 10 a.m. CEST)						
13:00	13:20	0018	NUMERICAL INVESTIGATION ON SEDIMENTATION BEHAVIORS OF SLUSH HYDROGEN IN CRYOGENIC TANK	Xia Siqi	Institute of Refrigeration and Cryogenic Engineering, Xi'an Jiaotong University, China	China
13:20	13:40	0036	EXPERIMENTAL STUDY ON SOLID-LIQUID EQUILIBRIUM OF CRYOGENIC METHANE MIXTURE PROPELLANT.	Bowen Liu	Institute of Refrigeration and Cryogenics, Xi'an Jiao Tong University	China

V / Cryostats and Thermal Insulation

Chairs: *Martin Lánský, Gregor Trommler*

13:40	14:00	0031	CRYOSTAT FOR THE CRYOGENIC CURRENT COMPARATOR	Andreas Kade	ILK Dresden	Germany
14:00	14:20	0042	LOW-TEMPERATURE EMISSIVITY AND ABSORPTIVITY OF THIN AL ₂ O ₃ LAYERS DEPOSITED ON COPPER SUBSTRATE	Jiří Frolec	ISI Brno	Czech Republic
14:20	14:40	0030	NEW TYPE OF MAGNETIC LOW-NOISE GLASS FIBER REINFORCED PLASTIC CRYOSTATS FOR MAGNETOCARDIOGRAPHY OF THE HUMAN HEART	Gregor Trommler	ILK Dresden	Germany

VI / Liquid Natural Gas

Chairs: *Václav Chrz, Ivan Arkharov / Martin Kroupa*

14:40	15:00	0035	DESIGN OF CRYOGENIC TURBINE WITH CONSIDERATION OF START-UP CONDITIONS AND OPTIMIZATION OF BRAKING CAPACITY	Vojtěch Kohut	PBS	Czech Republic
15:00	15:20	0041	A NEW EXPERIMENTAL APPARATUS FOR THE STUDY OF LOW-TEMPERATURE PHASE EQUILIBRIA FOR LNG PRODUCTION	Salem Hoceini	MINES ParisTech	France
15:20	15:40	0023	DYNAMICS OF FLOODING OF A CRYOSTAT WITH A BUILT-IN ASSEMBLY	Daria Krushel	Chart Ferox	Czech Republic
15:40	16:00	0053	ANALYSIS OF THE FREEZING MECHANISM IN LNG REGASIFICATION HEAT EXCHANGERS USED IN MOBILE APPLICATIONS	Michal Stanclik	Department of Cryogenics and Aerospace Engineering	Poland

VII / Cryobiology - Cryopreservation

Chairs: *Gabriele Spörl, Pavel Měříčka*

12:40	13:00		POSTER SESSION - SECTION C1 / In brief by <i>Gabriele Spörl & Jiří Gregor</i>				
13:00	13:20	0050	NUMBER OF OOCYTES COLLECTED FROM DONOR PER CYCLE AND THEIR MATURATION STATE BEFORE FREEZING INFLUENCE THE OOCYTES POST THAWED	Irena	Kratochvílová	Institute of Physics AS CR, Prague	Czech Republic
13:20	13:40	0038	NEW RECOMMENDATIONS FOR THE QUALITY AND SAFETY OF TISSUES AND CELLS FOR CLINICAL APPLICATION AND ITS SIGNIFICANCE FOR THE PRACTICE OF TISSUE ESTABLISHMENTS PERFORMING CRYOPRESERVATION	Pavel	Měříčka	FNHK	Czech Republic
13:40	14:00	0055	DELAYED ONSET OF CELL DEATH IN CRYOPRESERVATION FOR CELL THERAPY AND ITS PREVENTION	John	Baust	CPSI Biotech	USA
14:00	14:20	0043	INCREASED QUALITATIVE AND QUANTITATIVE REQUIREMENTS PUT ON HAEMATOPOIETIC CELL ESTABLISHMENT AS THE RESULT OF THE COVID-19	Pavel	Měříčka	FNHK	Czech Republic
14:20	14:40		BREAK				

VIII / Freeze drying and cryotherapy

Chairs: *Jiří Gregor, René Kretschmer*

14:40	15:00	0002	LYOPHILIZATION / FREEZE-DRYING AND SOLVENT RECOVERY WITH AIR REFRIGERATION	Thomas	Frank	Refolution Industriekälte GmbH	Germany
15:00	15:20	0012	OPERATING MODE OF JOULE-THOMSON MICROCHANNEL ARGON CRYOPROBE FOR PRECISION CRYOABLATION	Aleksandr	Puskharev	Bauman Moscow State Technical University	Russia
15:20	15:40	0011	EXPERIMENTAL STUDY OF PROLONGED PARTIAL BODY CRYOTHERAPY	Alexey	Shakurov	Bauman Moscow State Technical University	Russia
15:40	15:50		SHORT BREAK				
15:50	16:10		CLOSING CEREMONY / BEST POSTER ANNOUNCEMENT				

List of poster contributions

A1 Posters						
	0008	STEADY STATE MATHEMATICAL MODEL FOR A CRYOGENIC LOOP HEAT PIPE (CLHP) WITH COHERENT POROUS SILICON (CPS) WICK IN THE FLAT PLATE EVAPORATOR	Mishra	Govind Kumar	Department of Mechanical Engineering, Indian Institute of Science & Centre for Cryogenic Technology	India
	0009	CRYOGENIC PERFORMANCE OF A CONDUCTION COOLED CRYOSTAT FOR HYDROGEN ISOTOPES SEPARATION EXPERIMENTS AT LOW TEMPERATURES	Catalin	Brill	National Research and Development Institute for Cryogenic and Isotopic Technologies	Romania
	0014	WEKA'S BIGGEST CRYOGENIC CONTROL VALVE	Nicola	Magginetti	WEKA	Switzerland
	0016	THE FIRST TESTS ON THE VERTICAL CRYOSTAT GERSEMI WITH THE LIQUID INSERT AT FREIA LABORATORY	Cédric	Lhomme	Uppsala University	Sweden
	0019	ANALYSIS OF TEMPERATURE CHARACTERISTICS OF CRYOGENIC TARGET BASED ON A DIRECTIONAL INFRARED PHOTOTHERMAL-COUPPLING NUMERICAL MODEL	Guo	Fucheng	Institute of Refrigeration and Cryogenic Engineering, Xi'an Jiaotong University	China
	0045	DEVELOPMENT OF A CAPACITANCE BASED VOID FRACTION SENSOR USING CONCENTRIC ELECTRODE FOR TWO-PHASE LIQUID NITROGEN FLOW IN	John	Tony	TKM College of Engineering	India
	0047	A REMOVABLE TEMPERATURE SENSORS HOLDER FOR CRYOGENIC RAYLEIGH-BÉNARD CONVECTION CELL	Pavel	Urban	ISI Brno	Czech Republic
Section A2 Posters						
	0004	PROCESS SIMULATION AND INTEGRATION OF LIQUID AIR ENERGY STORAGE (LAES) IN THE CONTEXT OF WIND ELECTRICITY	Elizaveta	Shmeleva	Bauman Moscow State Technical University	Russia
	0032	DEVELOPMENT AND TEST RESULTS OF A CRYOGENIC HIGH-PRESSURE FUEL GAS SYSTEM	Martin	Klupsch	ILK Dresden	Germany
	0051	USING OF ADVANCED COMPUTATIONAL METHODS FOR CRYOGENIC GAS TURBINES DESIGN AND OPTIMIZATION	Luboš	Polák	PBS Velka Bites	Czech Republic
Section C1 Posters						
	0001	HIGH EFFICIENCY COLD SAUNA ON -115°C WITH ONLY AIR AS A REFRIGERANT	Thomas	Frank	Refolution Industriekälte GmbH	Germany
	0020	LIQUID NITROGEN AND PRESERVATION OF GENETIC MATERIAL OF BIOLOGICAL ORIGIN. HISTORICAL OVERVIEW	Ema	Arapetyan	National University by I. Franko, Kyiv	Ukraine
	0022	FREEZERS FAMILY FOR VACCINES AND CELL MATERIALS STORAGE WITHIN THE TEMPERATURE RANGE OF -90C TO -150C. RESEARCH AND DEVELOPMENT	Andrii	Mostytskyi	DNIPRO – MTO	Ukraine
	0029	INSIGHTS ON THE TIGHTNESS AND LONG-TERM STORAGE SUITABILITY OF CRYOVIALS AND STRAWS IN BIOBANKING	René	Kretschmer	ILK Dresden	Germany