MEM + HTS4Fusion - 2022 June 26 - July 1st

The time of 30 minutes for orals includes 5-10 minutes of discussion

June 26th - Sunday

Start	Duration	End		Abstract-ID	Oral #	Name	Affiliation	Title
18:00		22:00						Welcome Reception Badisch Brauhaus

June 27th - Monday

Start	Duration	End	Session Chairs	Abstract ID	Oral #	Name	Affiliation	Title
08:20	0:40	9:00						Bus Transfer from Hotel Kübler to KIT C.N.
9:00	0:30	9:30				Weiss, Klaus-Peter	Karlsruhe Institute of Technology / ITEP	MEM Welcome and Organizational
9:30	0:30	10:00	Arno Godeke	457	MEM_01	Kiss, Takanobu	Research Institute of Superconductor Science and Systems, Kyushu University	Novel continuous bending test method applicable to a small diameter less than 10 mm and a development of flexible REBCO tape joints
10:00	0:30	10:30	Satoshi Awaji	429	MEM_02	Ries, Rastislav	Institute of Electrical Engineering, Slovak Academy of Sciences	Analysis of defects in the superconducting layer after CC tape bending
10:30	0:20	10:50						Cofee-Break
10:50	0:30	11:20	Carl Buehler	413	MEM_03	Osamura, Kozo	RIAS	Difference of Bending Dependence of Critical Currents between BSCCO and REBCO Tapes
11:20	0:30	11:50	Pavol Kovác	415	MEM_04	Okada, Tatsunori	Institute for Materials Research, Tohoku University	Uniaxial Strain Dependence of Ic in High Strength Bi2223 Tapes Reinforced with 100-μm-thick Ni-alloy with Various Pre-tensions
11:50	0:30	12:20		460	MEM_05	Cheggour, Najib	ASC-NHMFL-FSU	On the Need of Standard Procedures for Measuring and Analyzing Ic(strain) data in Bi2Sr2CaCu2O8+x wires
12:20	1:40	14:00						Lunch
14:00	0:30	14:30	Damian Hampshire	428	MEM_06	Shin, Hyung-Seop	Andong National University	Establishing an electromechanical test method of practical HTS REBCO tapes through measuring Ic under tensile loads at cryogenic temperatures
14:30	0:30	15:00	Andrea Masi	449	MEM_07	Bagrets, Nadezda	KIT	New Work Item Proposal for ISO/IEC Standard for Low Temperature Tensile Test for HTS Wires
15:00	0:30	15:30		414	MEM_08	Okada, Tatsunori	Institute for Materials Research, Tohoku University	A possible origin of double peak structure in uniaxial strain dependence of critical current of REBCO coated conductors
15:30	0:20	15:50						Coffee Break
15:50	0:30	16:20	Christian Barth	410	MEM_09	Senatore, Carmine	University of Geneva	Progresses in REBCO tapes performance for emerging applications in ultra-high magnetic fields
16:20	0:30	16:50	Cornelia Hintze	435	MEM_10	Lee, Jae-Hun	SuNAM Co., Ltd.	Improvement of engineering critical current density of REBCO coated conductor by RCE-DR
17:00	0:40	17:40						Bus Transfer from KIT C.N. to Hotel Kübler

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June 28th - Tuesday								
Start	**Duration**	**End**	**Session Chairs**	**Abstract ID**	**Oral #**	**Name**	**Affiliation**	**Title**
08:20	0:40	9:00						Bus Transfer from Hotel Kübler to KIT C.N.
9:00	0:30	9:30	Takanobu Kiss	416	MEM_11	Godeke, Arno	Independent Consultant	35 T with Nb3Sn?
9:30	0:30	10:00	Carmine Senatore	439	MEM_12	Buehler, Carl	BRUKER EAS GmbH / BEST	Record Jc at 23 µm filament diameter in Bruker's new PIT 288 Nb3Sn R&D conductor platform
10:00	0:30	10:30		459	MEM_13	Cheggour, Najib	ASC-NHMFL-FSU	A Microstructural Aspect Strongly Influencing the Strain Resilience of RRP® Nb3Sn Wires — The d-CuSn Phase Disease
10:30	0:20	10:50						Cofee-Break
10:50	0:30	11:20	Najib Cheggour	420	MEM_14	Hampshire, Damian	Durham University	A New Description of the Field, Temperature and Strain Dependence of the Critical Current of Nb3Sn Polycrystalline Superconductors Modelled as a Collection of Josephson Junctions
11:20	0:30	11:50	Hyung-Seop Shin	440	MEM_15	Masi, Andrea	ENEA	Ca/K-1144 Iron Based superconducting wires with composite Cu/Ta sheaths: first experimental findings
11:50	0:30	12:20		412	MEM_16	Shi, Jiangtao	Shanghai Jiao Tong University	Comparison study of laser and mechanical slitting techniques on electromechanical properties of 2G-HTS tapes
12:20	1:40	14:00						Lunch
14:00	0:30	14:30	Tatsunori Okada	462	MEM_17	Kovác., Pavol	Institute of Electrical Engineering, Slovak Academy of Sciences	Current density and stress tolerance of iron based and MgB2 superconductors
14:30	0:30	15:00	Ratislav Ries	433	MEM_18	Barth, Christian	European Organisation for Nuclear Research (CERN)	The FRESCA and the new FRESCA 2 test stations at CERN: characterization of superconducting cables at currents of up to 70 kA and in dipole fields of up to 13 T
15:00	0:30	15:30		418	MEM_19	Nijhuis, Arend	University of Twente	Characterization of Bi-2223 Superconducting coils for compact cyclotrons in proton therapy
15:30	0:20	15:50						Coffee Break
15:50	0:30	16:20	Kozo Osamura	455	MEM_20	Awaji, Satoshi	Institute for Materials Research, Tohoku University	Electromechanical behaviors of REBCO coated conductor and "robust" impregnated coil
16:20	0:30	16:50	Jae-Hun Lee	422	MEM_21	Hintze, Cornelia	Theva Dünnschichttechnik GmbH	SuperLink - 2G HTS Wires for power transmission applications
17:00	0:40	17:40						Bus Transfer from KIT C.N. to Badische Weinstuben, Karlsruhe (close to Hotel Kübler)
18:00		22:00						Reception & Dinner at Badische Weinstuben

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June 29th -Wednesday								
Start	**Duration**	**End**	**Session Chairs**	**Abstract ID**	**Oral # /Poster #**	**Name**	**Affiliation**	**Title**
08:20	0:40	9:00						Bus Transfer from Hotel Kübler to KIT C.N.
9:00	0:30	9:30	Klaus-Peter Weiss	431	MEM_22	Lenoir, Gilles	European Organisation for Nuclear Research (CERN)	Development of a round cable based on REBCO tapes for the Superconducting Link Project at CERN
9:30	0:30	10:00				All		MEM Wrap-Up
10:00	0:20	10:20						Cofee-Break
10:20	0:30	10:50				Fietz, Walter	Karlsruhe Institute of Technology / ITEP	HTS4Fusion Welcome and Organizational
10:50	0:30	11:20	Makoto Takayasu	451	HTS4Fusion_01	Holzapfel, Bernhard	Karlsruhe Institute of Technology / ITEP	The KIT-CERN Collaboration on Coated Conductors KC4
11:20	0:30	11:50	Nagato Yanagi	nnn	HTS4Fusion_02	Arndt, Tabea	Karlsruhe Institute of Technology / ITEP	Linking the Energy Vector "Liquid Hydrogen" to Power Engineering – HTS as an enabler
11:50	0:30	12:20		nnn	HTS4Fusion_03	Noe, Mathias	Karlsruhe Institute of Technology / ITEP	From HTS for Fusion to Future Power Applications ... and about the privilege to work with Walter
12:20	2:20	14:40						Barbecue at ITEP
14:40	2:00	16:40	Walter Fietz	456	Poster_MEM_01	Machiya, Shutaro	Daido University	Current Status of Measuring Strain in Practical Superconducting Wires using Digital Image Correlation
14:40	2:00	16:40	Klaus-Peter Weiss	427	Poster_MEM_02	Frittitta, Chiara	École Polytechnique Fédérale de Lausanne (EPFL), Swiss Plasma Center	Strain distribution in a Nb3Sn React&Wind cable under applied transverse load
14:40	2:00	16:40		436	Poster_MEM_03	Puthran, Kirtana	European Organisation for Nuclear Research (CERN), Karlsruhe Institute of Techn.	Investigation of onset and evolution of mechanical degradation due to transverse compressive stress in Nb3Sn Rutherford cables
14:40	2:00	16:40		411	Poster_MEM_04	Lee M.S., Dong Gun	Sam Dong Co., Ltd.	Architecture design for commercial MgB2 superconducting wires at Sam Dong
14:40	2:00	16:40		452	Poster_MEM_05	Buran, Marek	Slovak Academy of Science	Behavior of MgB2 wires inside the liquid He and sub cooled water ice.
14:40	2:00	16:40		441	Poster_MEM_06	Zhang, Yifei	SuperPower Inc.	Critical current testing of REBCO tapes under spiral bending with controlled twist angle and winding tension
14:40	2:00	16:40		nnn	Poster_MEM_07	Osamura, Kozo	RIAS	Advanced technique for measuuring the bending strain dependence of critical current
14:40	2:00	16:40		454	Poster_MEM_08	Shin, Hyung-Seop	Andong National University	Evaluation of electromechanical properties in ultrasonic weld Ag-stabilized REBCO CC joints
14:40	2:00	16:40		437	Poster_HTS4Fusion_01	Yanagi, Nagato	National Institute for Fusion Science	Current carrying performance of the HTS WISE conductor in magnetic field and improvement in the current feeder structure
14:40	2:00	16:40		406	Poster_HTS4Fusion_02	Wang, Jiawen	North China Electric Power University	Angular Dependence of Dynamic Resistances in HTS Quasi-isotropic Strand on Magnitude and Orientation of AC Magnetic Field
14:40	2:00	16:40		453	Poster_HTS4Fusion_03	Moore, Peter	Tufts University	Electromechanical Characterization of Two HTS Cabling Designs for Fusion Based on Single-tape Experiments and Structural Models
16:50	0:40	17:30						Bus Transfer from KIT C.N. to Hotel Kübler
18:30	0:40	19:10						Bus Transfer from Hotel Kübler to Karlsruhe Main Station (20 min waiting time at hotel Kübler to pick up luggage)

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June 30th - Thursday								
Start	**Duration**	**End**	**Session Chairs**	**Abstract ID**	**Oral #**	**Name**	**Affiliation**	**Title**
08:20	0:40	9:00						Bus Transfer from Hotel Kübler to KIT C.N.
9:00	0:30	9:30	Nikolay Bykovski	442	HTS4Fusion_04	Yanagi, Nagato	National Institute for Fusion Science	Stable operation characteristics of a 20-kA 6-m STARS conductor
9:30	0:30	10:00	Arend Nijhuis	447	HTS4Fusion_05	Ito, Satoshi	Tohoku University	R&D of low-resistance joint of HTS STARS conductors with indium insertion
10:00	0:30	10:30		443	HTS4Fusion_06	Masi, Andrea	ENEA	Aluminium slotted-core cable in conduit conductor designed for nuclear fusion applications: liquid nitrogen electrical characterization
10:30	0:20	10:50						Cofee-Break
10:50	0:30	11:20	Mykola Soloviov	nnn	HTS4Fusion_07	Kochat, Mehdi	Renaissance Fusion	Simplified Manufacturing of Multi-Layer Patterned HTS Coils for Field with Non-Trivial 3D Distribution
11:20	0:30	11:50	Naoyuki Amemiya	421	HTS4Fusion_08	Huslage, Paul	THEVA Dünnschichttechnik GmbH	2G HTS tapes for stellarator coils – a feasibility study
11:50	0:30	12:20		423	HTS4Fusion_09	Gömöry, Fedor	Institute of Electrical Engineering, Slovak Academy of Sciences	Analysis of critical current fluctuations as the means to assess the impact of tape slitting
12:20	1:40	14:00						Lunch
14:00	0:30	14:30	Andrea Zappatore	448	HTS4Fusion_10	Bagrets, Nadezda	Karlsruhe Institute of Technology / ITEP	Thermal resistance of stacks of HTS wires under various mechanical pressure and in the temperature range from 4 K to 300 K
14:30	0:30	15:00	Paul Huslage	446	HTS4Fusion_11	Jaroszynski, Jan	NHMFL	Rapid and comprehensive REBCO tape characterization with torque magnetometry up to 45 T
15:00	0:30	15:30		458	HTS4Fusion_12	Bradford, Griffin	ASC-NHMFL-FSU	Inter-tape and Intra-tape Variability from Prominent Manufacturers and the Implications for Fusion
15:00	0:20	15:20						Coffee Break
15:20	0:30	15:50	Nadja Bagrets	434	HTS4Fusion_13	Takayasu, Makoto	MIT, PSFC	Development of REBCO Rutherford-Type Cabling
15:50	0:30	16:20	Griffin Bradford	419	HTS4Fusion_14	Bykovskiy, Nikolay	EPFL Swiss Plasma Center	Experimental study of stability, quench propagation and detection methods on 15 kA sub-scale HTS fusion conductors in SULTAN
16:20	0:30	16:50		461	HTS4Fusion_15	Hartwig, Zachary	Massachusetts Institute of Technology	The SPARC Toroidal Field Model Coil and Some Lessons Learned for Large Scale REBCO Fusion Magnets
16:50	0:20	17:10						Coffee Break
17:10	0:30	17:40	Fedor Gömöry	445	HTS4Fusion_16	Phifer, Virginia	NHMFL-ASC	Investigations in the tape-to-tape contact resistance and contact composition in superconducting CORC® wires
17:40	0:30	18:10	Danielle Torsello	417	HTS4Fusion_17	Nijhuis, Arend	University of Twente	Enhanced critical axial tensile strain limit of CORC® wires: FEM and analytical modeling
18:20	0:20	18:40						Bus Transfer from KIT C.N. to Restaurant Ritter
19:00								Dinner at Restaurant Ritter
								Bus Transfer from Restaurant Ritter to Hotel Kübler

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July 1st - Friday								
Start	**Duration**	**End**	**Session Chairs**	**Abstract ID**	**Oral #**	**Name**	**Affiliation**	**Title**
08:20	0:40	9:00						Bus Transfer from Hotel Kübler to KIT C.N.
9:00	0:30	9:30	Virginia Phifer	407	HTS4Fusion_18	Amemiya, Naoyuki	Kyoto University	Low magnetization loss being compatible with robustness against local defect and local normal transition in spiral copper-plated striated coated-conductor (SCSC) cables
9:30	0:30	10:00	Satoshi Ito	430	HTS4Fusion_19	Soloviov, Mykola	Institute of Electrical Engineering, Slovak Academy of Sciences	Magnetization AC losses of multilayer superconducting round cables with coinciding and opposite lay angles
10:00	0:20	10:20						Cofee-Break
10:20	0:30	10:50	Zach Hartwig	450	HTS4Fusion_20	Zappatore, Andrea	Politecnico di Torino, Dipartimento energia	Modelling of hysteresis losses in HTS Cable-in-Conduit Conductors for large scale applications
10:50	0:30	11:20	Jan Jaroszynski	444	HTS4Fusion_21	Torsello, Daniele	Politecnico di Torino, Dep. Appl. Sci. &Techn. and Istituto Naz. di Fisica Nucleare	Expected radiation environment and damage for YBCO tapes in compact fusion reactors
11:20	0:30	11:50	Walter Fietz			All		Wrap-Up, Conclusions and Farewell
11:50	0:35	12:25						Lunch package available
12:35	0:40	13:15						Bus Transfer from KIT C.N. to Hotel Kübler
14:15	0:40	14:55						Bus Transfer from Hotel Kübler to Karlsruhe Main Station (20 min waiting time at hotel Kübler to pick up luggage)