

# IWSMT-13 AGENDA

Monday – October 31, 2016

07:00 – 08:15	<b>Registration</b>	
<b>Session 1: Welcome and Keynote Addresses</b>		
08:20 – 08:30	Opening Address	Bernie Riemer
08:30 – 08:40	Welcome Address	Don Abercrombie
08:40 – 09:00	Plenary Address 1 - The International Workshops on Spallation Materials Technology	Lou Mansur
09:00 – 09:40	Plenary Address 2 - Impact of H and He transmutation products on radiation effects in materials	Steve Zinkle
09:40 – 10:00	<b>Coffee Break</b>	
10:00 – 10:25	Status of the European Spallation Neutron Source	Eric Pitcher
10:25 – 10:50	Present status of Chinese Spallation Neutron Source project	Xuejun Jia
10:50 – 11:15	The Proton Power Upgrade project and its Impact on the SNS First Target Station	Bernie Riemer
11:15 – 11:40	Current status of the Chinese ADS project	Zhiguang Wang
11:40 – 12:50	<b>Lunch</b>	
<b>Session 2: Progress of Accelerator Driven System with Emphasis on Materials</b>		
12:50 – 13:15	SINQ - A Status Report	Michael Wohlmuther
13:15 – 13:40	Present status of JSNS mercury target	Takashi Naoe
13:40 – 14:05	Compatibility research of structural materials for China lead-based research reactor	Chunjing Li
14:05 – 14:30	Spallation materials R&D and application for Beam Intercepting Devices (BID) at CERN	François-Xavier Nuiry
14:30 – 14:50	<b>Coffee Break</b>	
14:50 – 15:15	Investigation of target material for muon production under high power proton beam irradiation	Shunsuke Makimura
15:15 – 15:40	Pulsed heavy-ion irradiation of tungsten	Jemila Habainy
15:40 – 16:05	Re-examination of ion irradiation as a credible tool to simulate high energy neutron and proton-induced void swelling for accelerator-driven devices	Frank Garner
16:05 – 16:30	The RaDIATE Collaboration – exploring high power target materials response to radiation damage – goals, status, and future plans	Patrick Hurh
16:30 – 18:00	<b>Poster Session</b>	

**Tuesday – November 1, 2016**

<b>Session 3: Radiation-Induced Effects in Structural Materials</b>		
08:20 – 08:45	Development of advanced ferritic steels for high dose applications	Stuart Maloy
08:45 – 09:10	Tensile testing of steels from the STIP-V irradiation	Tarik Saleh
09:10 – 09:35	Tensile properties characterization of irradiated AISI 316L from high-use target modules at the Spallation Neutron Source using digital image correlation	David McClintock
09:35 – 10:00	Swelling, creep, and embrittlement of D9 stainless steel cladding and duct in two FFTF driver fuel assemblies at high neutron exposures	Frank Garner
10:00 – 10:20	<b>Coffee Break</b>	
10:20 – 10:45	The behaviour of AlMg <sub>3</sub> after irradiation at high proton and neutron fluences in SINQ targets	Yong Dai
10:45 – 11:10	Post irradiation examination of the MEGAPIE samples at JAEA (2)	Shigeru Saito
11:10 – 11:35	The transmission electron analysis of dislocation loops in T91 steels from MEGAPIE and TWIN-ASTIR irradiation programs	Milan Konstantinovic
11:35 – 12:00	Barrier strength of defects and helium bubbles for hardening of martensitic steels irradiated in STIP	Lei Peng
12:00 – 13:10	<b>Lunch</b>	
<b>Session 4: Research and Development of Target System Materials</b>		
13:10 – 13:35	Mechanical properties and fracture behavior of pure tungsten and tantalum after irradiation in SINQ	Yong Dai
13:35 – 14:00	Annealing effect on the microstructure and hardness of irradiated tungsten	Barbara Horvath
14:00 – 14:25	Formation of oxide layers on tungsten in mildly oxidizing gas	Jemila Habainy
14:25 – 14:50	Low-Z material R&D and application for Beam Intercepting Devices (BID) at CERN	François-Xavier Nuiry
14:50 – 15:10	<b>Coffee Break</b>	
15:10 – 15:35	Fatigue properties of tungsten from different processing routes	Jemila Habainy
15:35 – 16:00	Luminescent materials development for beam-on-target imaging at the European Spallation Source	Thomas Shea
16:00 – 16:25	Design and fabrication of a passive irradiation module utilizing the high neutron flux from the 5 MW Spallation Source at ESS	Yong Joong Lee
16:25 – 17:00	<b>Discussion - 1</b>	

**Wednesday – November 2, 2016**

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<b>Session 5: Research and Development of Target System Designs</b>		
08:20 – 08:45	The ESS helium cooled rotating target	Fernando Sordo
08:45 – 09:10	Design modification of ISIS TS2 target in order to improve longevity amid spallation reactions	Arghya Dey
09:10 – 09:35	Simulating performance of tantalum-clad tungsten targets	Dan Wilcox
09:35 – 10:00	Manufacturing of ESS cold moderator – machining, welding, and testing of Al 6061-T6 alloy	Yannick Bessler
10:00 – 10:20	<b>Coffee Break</b>	
10:20 – 10:45	Weldability of diffusion bonding between Invar alloy and stainless steel by hot isostatic pressing	Takashi Wakui
10:45 – 11:10	Measured SNS mercury target vessel strain responses to beam pulses and comparison to simulations with variations on mercury material model behavior	Drew Winder
11:10 – 11:35	Failure analysis on the welded part with steep change of thickness employed in JSNS mercury target vessel	Takashi Wakui
11:35 – 12:00	Thermomechanical analysis of ESS spallation material	Fernando Sordo
12:00 – 13:00	<b>Lunch</b>	
19:00 – 22:30	<i>Banquet at the Tennessee Aquarium in the Ocean Journey building</i>	

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**Thursday – November 3, 2016**

<b>Session 6: Compatibility of Liquid Metals with Structural Materials</b>		
08:20 – 08:45	Cavitation damage in double-walled mercury target vessel	Takashi Naoe
08:45 – 09:10	Effect of oxygen concentration on LME susceptibility of CLAM steel in liquid lead bismuth eutectic	Liu Jing
09:10 – 09:35	Numerical modeling of impurities mass transfer in a wire wrapped fuel assembly under flowing lead bismuth eutectic	Alessandro Marino
09:35 – 10:00	Development of SIMP steel for accelerator driven system in China	Zhiguang Wang
10:00 – 10:20	<b>Coffee Break</b>	
10:20 – 10:45	Low cycle fatigue behavior of 15-15Ti steel in static lead-bismuth eutectic with 10-6wt% oxygen concentration at 550°C	Chunjing LI
10:45 – 11:10	Corrosion behavior of Ti <sub>3</sub> SiC <sub>2</sub> in flowing lead bismuth eutectic at 1000°C	Zunqi Xiao
11:10 – 11:35	Oxidation behaviors of CLAM steel in stagnant liquid lead-bismuth Eutectic at 500 °C	Shaojian Yan
11:35 – 12:00	<b>Discussion - 2</b>	
12:00 – 13:10	<b>Lunch</b>	
<b>Session 7: Analysis of Target System Materials and Components</b>		
13:10 – 13:35	Positron lifetime calculation of vacancy clusters in tantalum containing hydrogen and helium	Qiu Xu
13:35 – 14:00	Investigation of samples of F/M and ODS steels irradiated in the spallation source SINQ by positron annihilation	Vladimir Krsjak
14:00 – 14:25	Rate theory analysis of growth process of helium bubble in F82H Irradiated at SINQ	Koichi Sato
14:25 – 14:50	Investigation of SINQ-irradiated samples by single detector Doppler-broadening spectroscopy	Jozef Snopek
14:50 – 15:10	<b>Coffee Break</b>	
15:10 – 15:35	Experimental investigation of irradiation effects in beryllium beam window after exposure in the NuMI beamline: preliminary results and plans	Viacheslav Kuksenko
15:35 – 16:00	Plans for the RaDIATE high-energy proton materials irradiation experiment at the Brookhaven Linac Isotope Producer facility	Kavin Ammigan
16:00 – 16:25	HiRadMat at CERN SPS - A dedicated test facility with high intensity beam pulses to material samples	Adrian Fabich
16:25 – 17:00	<b>Discussion - 3</b>	

**Friday – November 4, 2016**

<b>Session 8: Simulations of Radiation Effects on Materials in Spallation Applications</b>		
08:20 – 08:45	Application of rigorous two step methodology for neutron and proton transmutation calculations to spallation targets.	Steven Lilley
08:45 – 09:10	Displacement damage, helium and hydrogen production in different materials irradiated in STIP-VI	Yong Dai
09:10 – 09:35	Simulation of hydrogen thermal desorption characteristics in metals containing large voids	Hayato Yamashita
9:35 – 9:55	<b>Coffee Break</b>	
9:55 – 10:20	Material selection of the beam profile monitoring devices at the ESS Target Station	Yong Joong Lee
10:20 – 10:45	The present status and prospective of STIP	Yong Dai
10:45 – 11:15	<b>Discussion - 4</b>	
11:15 – 11:45	<b>Summary and Concluding Remarks</b>	