

# HPTW 2023 Time Table

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	Nov. 6 (Mon.)	Nov. 7 (Tue.)	Nov. 8 (Wed.)	Nov. 9 (Thu.)	Nov. 10 (Fri.)
8:30	Registration	Registration	Registration	Registration	Registration
8:50	Announcement	Announcement	Announcement	Announcement	Announcement
9:00	Welcome talk (H. Sakurai) Chair: Y. Dai (PSD)	ID70 "Hadron Collaboration Status and Recent Results on Material Studies" (Frederique Pellegrino) Chair: S. Makimura (KEK)	(Invited) "DIFFUSION BONDING BY MEANS OF HIP FOR BEAM INTERCEPTING DEVICES AT CERN" (Antonio PERRILLO MARCONI) Chair: D. Winder (ORNL)	(Invited) "Updates on the operation of the MLF target systems at J-PARC and perspectives for high power operation" (K. Hagi) Chair: M. Calviani (CERN)	(Invited) "A new spallation-driven two-step target at ISAC-TRIUMF: Design, online irradiations and PIE" (Lucia Egardt) Chair: A. Gottberg (TRIUMF)
9:15	Target activities at RIBF (H. Okuno) Chair: Y. Dai (PSD)	ID98 "Novel Materials R&D for Next-Generation Accelerator Target Facilities" (Kevin Amnig) Chair: S. Makimura (KEK)			
9:30	Proton Irradiation Facility at J-PARC (S. Meigo) Chair: Y. Dai (PSD)	ID47 "Computational Exploration of High Entropy Alloys as Promising Materials for Future Beam Windows" (Gaurav Arora) Chair: S. Makimura (KEK)	ID85 "Anchoring Beam Deposition for Asteroid Deflection" (Melenie Boehmann) Chair: D. Winder (ORNL)	ID114 "MUON ROTATING TARGET AT J-PARC MLF" (Shiro Matoba) Chair: M. Calviani (CERN)	ID40 "Large Eddy Simulations of the cooling channels of ISIS Target Station 2" (Gregory Oertland-Glover) Chair: A. Gottberg (TRIUMF)
9:45	(Invited) "First-of-a-kind autopsy of the Large Hadron Collider external beam dump" (Ana-Paula Bernardes) Chair: David Sencor (FNRL)	ID100 "Evaluation of $\beta$ -phase based titanium alloys" (Eiichi Waka) Chair: S. Makimura (KEK)	ID56 "Tesla-Converter: A high power water cooled Bremsstrahlung converter" (Matthias Loh) Chair: D. Winder (ORNL)	ID72 "The High-Power Beam Dump System for the BigRPS Separator" (Yasuhiro Togano) Chair: M. Calviani (CERN)	ID32 "ISIS Target Station 2 Update on Target Evolution" (Leslie Jones) Chair: A. Gottberg (TRIUMF)
10:00		Coffee Break	ID34 "New cryogenic helium heat exchanger for the ISIS Target Station 2 Solid Methane Moderator" (Mark Tallman) Chair: D. Winder (ORNL)	ID108 "Survivability of proton beam degraders and beam stop: experience at Brookhaven Linac Isotope Producer" (Dohyan Kim) Chair: M. Calviani (CERN)	ID85 "Computational analysis of energy deposition on beam stoppers for Super-FRS at FAIR" (Anit Kumar) Chair: A. Gottberg (TRIUMF)
10:15	ID44 "Recent spallation materials researches performed at PSI" (Yong Dai) Chair: David Sencor (FNRL)	(Invited) "NuMI Record Beam Power Experiences" (George Lolov) Chair: K. Yonehara (FNAL)	ID25 "Vibration analysis of Mo-100 targets for accelerator based Mo-99 production" (Bhavini Singh) Chair: D. Winder (ORNL)	ID120 "Operational Experiences of FRIB Linac Beam-Intercepting Devices" (Tomofumi Maruta) Chair: M. Calviani (CERN)	ID28 "Status and R&D of the target and beam dump at FRIB" (Jeongseog Song) Chair: A. Gottberg (TRIUMF)
10:30	Coffee Break		Coffee Break	Coffee Break	Coffee Break
10:45	(Invited) "The Muon Collider Study: Challenges and perspectives" (R. Loizia) Chair: H. Imao (RIKEN)	(Invited) "Current developments of the LBE spallation target for the CIADS project" (Tao Wan) Chair: K. Yonehara (FNAL)	ID64 "Mu2e Target Status and Challenges" (Zurping Liu) Chair: H. Okuno (RIKEN)	(Invited) "Materials research and dose limits for highly irradiated components at the Spallation Neutron Source" (D. McClintock) Chair: Y. Dai (PSD)	(Invited) "FRIB Remote Handling - Operations Experience and Future Plans" (Michael Lamm) Chair: P. Huh (FNAL)
11:00			ID45 "Present design status of COMET target at J-PARC" (Shunsuke Makimura) Chair: H. Okuno (RIKEN)		
11:15	(Invited) "Production of estrane-211 for targeted $\alpha$ -particle therapy at RIBF" (H. Haba) Chair: H. Imao (RIKEN)	ID135 "Upgrades, fabrication and quality assurance of 1.3MW HyperK target" (Mike Fitton) Chair: K. Yonehara (FNAL)	ID80 "Surface muon production at J-PARC muon facility" (Phanphip Jalakaw) Chair: H. Okuno (RIKEN)	ID66 "Recent Advancements and In-house capabilities in Thermal and Mechanical Characterization of Conventional and Novel Materials" (Sujit Bidhar) Chair: Y. Dai (PSD)	ID61 "HiRadMet: a high power targetry facility at CERN" (Alice Gollot) Chair: P. Huh (FNAL)
11:30		ID28 "Large Hadron Collider (LHC) Beam Dumps: a high-power, high energy beam absorber: evolution from LHC construction towards High Luminosity LHC" (Marco Calviani) Chair: K. Yonehara (FNAL)	ID64 "Development of new rotating-disk-type production target at J-PARC Hadron Experimental Facility" (Hirosaki Watanabe) Chair: H. Okuno (RIKEN)	ID127 "Thermal diffusivity of tungsten irradiated by protons in spallation environment up to 26.5 dpa" (Yong Dai) Chair: H. Okuno (RIKEN)	ID50 "Target Systems Integration for a high intensity facility in the CERN's North Area" (Jean-Louis Grenard) Chair: P. Huh (FNAL)
11:45	ID118 "Present status and upgrade plan of RI production target in SCRIT electron scattering facility" (Yasushi Abe) Chair: H. Imao (RIKEN)	ID15 "Positron source and target in KEK" (Yoshinori Enomoto) Chair: K. Yonehara (FNAL)	ID59 "Lujan Center IL Target TMRS Mark IV Upper Target Design and Thermal Hydraulic Analysis" (Erio Oliveira) Chair: H. Okuno (RIKEN)	ID55 "Trends properties of SS316LN-EDW after irradiated in STIP-II" (SHAOHONG WEI) Chair: Y. Dai (PSD)	ID29 "Radiation protection studies for a high intensity facility in the CERN's ECHS area" (Claude Abdala) Chair: P. Huh (FNAL)
12:00	ID42 "The ISAC facility secondary irradiation and PIE upgrades" (Ferran Boix Parnies) Chair: H. Imao (RIKEN)	ID61 "Development of IL0 positron production target" (Yu Morikawa) Chair: K. Yonehara (FNAL)	ID48 "Optimizing neutron production at ORNL's Second Target Station" (Igor Remeo) Chair: H. Okuno (RIKEN)	ID23 "Microstructure, strength of Al90B1-T6 after irradiation in SING Target-13" (Feng Song) Chair: Y. Dai (PSD)	
12:15					
12:30	Lunch Break	Lunch Break	Lunch Break	Lunch Break	Lunch Break
12:45				SPC meeting	
13:00					
13:15					
13:30	Memorial talk for Nick Simco	ID129 "LBNF Absorber Design Status and Assembly Planning" (Jonathan Williams) Chair: K. Yonehara (FNAL)	Transfer to banquet	ID62 "Status and Plans for Long Baseline Neutrino Facility Beam Targetry" (Patrick Huh) Chair: T. Naoe (JAEA/J-PARC)	(Invited) "ISIS Target Station 1, Upgrade Project - Target Station Rebuild Project" (Dan Coates) Chair: H. Weick (GSD)
13:45	(Invited) "Overview of Radiation Materials Science and Radiation Damage Modeling" (David Sencor) Chair: S. Makimura (KEK)	(Invited) "LBNF Target Design" (Dan Wilcox) Chair: C. Deneham (STFC/RAL)		ID68 "LBNF Beam Windows Remote Handling and R&D Needs" (Quinn Peterson) Chair: T. Naoe (JAEA/J-PARC)	
14:00				Coffee Break (Group photo)	ID54 "Target and cooling system for the high intensity neutrino beams at J-PARC" (Teunayuki Matsubara) Chair: H. Weick (GSD)
14:15	(Invited) "Irradiation damage of diamond by ion implantation" (Masahiko Ogura) Chair: S. Makimura (KEK)	ID128 "PREDICTION OF BUBBLE SIZE DISTRIBUTION IN HIGHLY TURBULENT TWO-PHASE LIQUID METAL SWIRL FLOW" (Evis Dominguez) Chair: C. Deneham (STFC/RAL)	Excursion	ID69 "Upgrades and Progress in Increasing Beam Power Above 1.4 MW at the SNS" (Drew Winder) Chair: H. Weick (GSD)	ID66 "Challenges Encountered While Replacing the SNS Ring Injection Dump Beam Stop and Window" (Ryan Schultz) Chair: H. Weick (GSD)
14:30		ID35 "Overview of the design status of IFMIF-DONES Lithium Target System" (Jorge Maestro) Chair: C. Deneham (STFC/RAL)		ID68 "Challenges Encountered While Replacing the SNS Ring Injection Dump Beam Stop and Window" (Ryan Schultz) Chair: H. Weick (GSD)	ID38 "SNS Target Instrumentation Based on Fiber-Optic Sensors: Development and Application Experience" (Yun Liu) Chair: H. Weick (GSD)
14:45	ID60 "Capabilities of the FLUKA particle transport code for the design and operation of high-power targetry systems" (Francesca Salvat Pujo) Chair: S. Makimura (KEK)	ID67 "Multiphysics analysis of LBE windowless target design under high-power electron beam" (Jee Hyun Seong) Chair: C. Deneham (STFC/RAL)			ID33 "Present status of cavitation damage mitigation techniques for the mercury target vessel at J-PARC pulsed spallation neutron source" (Takashi Naoe) Chair: H. Weick (GSD)
15:00	ID22 "Measurement of displacement cross section for high-energy protons and future plan for material damage using 0.4 GeV protons at J-PARC" (Shin-ichiro Meigo) Chair: S. Makimura (KEK)	ID53 "Coupling mercury/ bubble material model in the pulse simulation to predict strain on the Spallation Neutron Source target vessel with gas injection" (Hao Jiang) Chair: C. Deneham (STFC/RAL)			
15:15	Coffee Break	Coffee Break		Lab Tour	Coffee Break
15:30	(Invited) "Charge stripper ring for RIBF" (Hirosaki Imao) Chair: D. Kim (BNL)	(Invited) "High Power Target R&D needs for muon collider" (Katsuya Yonehara) Chair: F. Pellegrino (FNAL)			Discussion & Closing remarks
15:45					
16:00	ID112 "Facility Design of the COMET Experiment at J-PARC" (Yoshinori Fukao) Chair: D. Kim (BNL)	ID117 "Fabrication of Li-doped diamond by nuclear transmutation" (Yasuto Miyake) Chair: F. Pellegrino (FNAL)			
16:15	ID104 "ORNL Second Target Station Preliminary Design Update" (Michael Strong) Chair: D. Kim (BNL)	ID111 "Thermal hydraulic characteristics studies of upward spiral flow windowless target (UST)" (Welfang Yang) Chair: F. Pellegrino (FNAL)			
16:30	ID79 "ORNL Second Target Station Vessel Systems Preliminary Design Update" (Christopher Anton) Chair: D. Kim (BNL)	ID103 "Innovative material developments for target backings" (Kieran Kassaci) Chair: F. Pellegrino (FNAL)			
16:45	ID82 "Design of Rotating Tungsten Target with Segmented Modules for Replacement" (Aaron Jacques) Chair: D. Kim (BNL)	ID69 "Development of Beam Target Cooling System Using Two-Phase Flow Natural Circulation" (Naoya Kamai) Chair: F. Pellegrino (FNAL)			
17:00					
17:15	Welcome Reception	Poster Session			
17:30			Banquet		
17:45					
18:00					
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18:30					
18:45					
19:00					
19:15					
19:30					
19:45					
20:00			Return to Wako		
20:15					
20:30					
20:45					
21:00					

1. R&D to support concepts
2. Radiation damage in target material and related simulations
3. Post-irradiation examination
4. Target design, analysis, and validation of concepts
5. Target facility challenges
6. Construction, fabrication, inspection, quality assurance
7. Operation of targets and beam dumps
8. Multipurpose use of targets and beam dumps

## Poster session

Poster #	Id	Title	Submitter
1	63	ISIS Target Station Two Horn Water Pre-Moderator Failure, Investigation, and Redesign	Mark Telkman
2	125	Optimisation Procedures for ISIS-II Targets	Dan Wilcox
3	124	Initial Target Concepts for ISIS-II	Dan Wilcox
4	123	Simulated and Measured Performance of ISIS TS1 Project Target	Dan Wilcox
5	31	ISIS Target Station 2, Post Irradiation Examination of W-Ta Target no 4	Leslie Jones
6	121	COLLIMATORS FOR THE HIGH LUMINOSITY LHC AT CERN	Antonio PERILLO MARCONE
7	118	OPERATIONAL EXPERIENCE OF CERN SUPER PROTON SYNCHROTRON BEAM DUMP	Antonio PERILLO MARCONE
8	92	Beam Intercepting Devices for the High Intensity upgrade in CERN's SPS North Area facility	Rui Franqueira Ximenes
10.2	91	Target Systems at the Front end of the International Muon Collider	Rui Franqueira Ximenes
11	49	LINAC3 SLITS CONSOLIDATION	Jean-Louis Grenard
12	37	ISOLDE Beam Dumps Exchange: A challenging consolidation, from buried dumps to flexible access	Ana-Paula Bernardes
13	57	The Shielding Flask System at Super-FRS	Faraz Amjad
14	113	The Muon Science Facility of MLF J-PARC	Naritoshi Kawamura
15	110	ANALYSIS OF ROTATIONAL VIBRATION OF MUON PRODUCTION TARGET AT J-PARC MLF	Hikaru Sunagawa
16	71	Development of radiation-resistant distance-sensor for rotating-disk-type target at J-PARC Hadron Experimental Facility.	Fumimasa MUTO
17	94	Brookhaven Linac Isotope Producer status and Pre/Post-irradiation characterization and analysis capabilities at BNL	Dohyun Kim
18	67	Novel materials irradiation and pre-characterization plans for high-power targetry applications	Abe Burleigh
19	130	Testing high-DPA irradiated titanium alloys for high-cycle fatigue	Richard Cowan
20	83	Mechanical Properties Testing, Characterization and Modeling of Proton-irradiated Ti-base Alloys and Beryllium	David Senor
21	102	Fabrication of W-1.1%TiC with helium bubbles via powder metallurgical route incorporated with helium ambient mechanical alloying	Tatsuaki Sakamoto
22	98	Recent Progress in development of Toughened, Fine Grained, Recrystallized Tungsten	Shunsuke Makimura
23	75	Development of beam window with a large diameter, a thin wall thickness and a large proof pressure for COMET experiment through additive manufacturing	Yutaka Nagasawa
24	77	Life cycle of the proton beam window in J-PARC MLF	Motoki Ooi
25	68	Moderator and Reflector Fabrication Challenges at the Spallation Neutron Source	Drew Winder
26	80	Impact and Lessons Learned from the Mercury System Filling Incident at the Spallation Neutron Source	Drew Winder
27	122	To realize accelerator driven 80kW class neutron source - defect control and thermal management.	Toshikazu Kurihara
28	21	Experimental study of nuclide production cross sections via the $^{nat}\text{Pb}(p,X)$ reaction with GeV-energy proton incidence	Kenta SUGIHARA
29	74	Graphite enclosure power density experiment	Xuezhi Zhang
30	73	Performance test of Granular flow target	Lei Yang
31	76	Isotope batch production target design	Yaling Zhang
32	138	Overview of High-Power Targets at TRIUMF - Canada's Particle Accelerator Centre	Isaac Earle
33	30	Evaluation on the beam dump activation in the linear IFMIF prototype accelerator (LIPAc)	Kohki Kumagai
34	105	High-power spallation target for Subcritical Transmutation Accelerated Reactor Technology START: challenges and perspectives	Massimo Barbagallo