IPAC'25 Scientifc Program

Time	Sun. 1 June	Monday 2 June	Tuesday 3 June		Wednesday 4 June		Thursday 5 June		Friday 6 June
		Plenary Hall, TICC Chair: Ming-Chyuan Lin	101, TICC Chair: Hiroshi Imao	201, TICC Chair: Seunghwan Shin	101, TICC Chair: Ralf Gebel	201, TICC Chair: Thapakron Pulampong	101, TICC Chair: Enrica Chiadroni	201, TICC Chair: Mohammad Eshraqi	101, TICC Chair: Rogelio Tomas
9:00		Welcome Address	Personnel and machine protection for FRIB commissioning, operations, and power ramp up Masanori Ikegami, FRIB	Elevating beam quality and stability in linear accelerators through high order mode analysis Sanae Samsam, INFN	Experimental demonstration of particle acceleration with normal conducting accelerating structure at cryogenic temperature Sami Tantawi, ASU	Upgrade of KEK electron/ positron injector linac by using pulse magnets and machine learning Takuya Natsui, KEK	Guiding of charged particle beams in curved plasma-discharge capillaries Riccardo Pompili, INFN	Review of beam based correction and optimisation for accelerators Xiaobiao Huang, SLAC	Neutron target for high-intensity operation at J-PARC MLF Katsuhiro Haga, JAEA
9:30		The operational challenges: achieving 500 mA high beam current at Taiwan Photon Source Ping-Jung Chou, NSRRC	Progress in linac beam commissioning for high-intensity operations for J-PARC power upgrades Yong Liu, KEK	Study on the eddy current distribution in the coating layer on the ceramic chamber of a nonlinear kicker Hao-Wen Luo, NSRRC	20 years of CESR-B cavity operation at the CLS Frédéric Le Pimpec, CLS	Measurement techniques using the electron beam profile scanner at the Fermilab Main Injector Matilda Mwaniki, Illinois Institute of Technology	Progress on experimental demonstration of high-power generation from 0.4 THz corrugated structure MinKyu Seo, Korea University	Assessing the origin of the LHC beam halo Pascal Hermes, CERN	Review of impedance effects for accelerators Takeshi Toyama, KEK
9:50			Status of the proton linac for boron neutron capture therapy in the iBNCT project Masaharu Sato, KEK	No parametric instabilities in actual linear accelerators except the envelope instability Dong-O Jeon, IBS	High power RF testing of high-temperature superconductors Ankur Dhar, SLAC	Data-driven hysteresis compensation in the CERN SPS main magnets Anton Lu, CERN	First measurements of electron acceleration with a plasma density step at AWAKE Fern Pannell, UCL	Coherent stability and dynamic aperture with strong space charge for the FAIR SIS100 synchrotron Adrian Oeftiger, John Adams Institute	
10:00									
10:10	Student Training TWTC 2F Room #5	High beam power operations at heavy ion facilities: Technical developments, challenges and resolutions Osamu Kamigaito, RIKEN Nishina Center	Injection into Resonance islands Henry Lovelace III, BNL	Comprehensive study of Robinson instability in active and passive higher harmonic cavities for bunch lengthening Youngmin Park, POSTECH	Further high power tests of the additive manufacturing IH-type cavity Hendrik Hähnel, Goethe University Frankfurt	Supersonic gas curtain-based in-vivo transverse beam profile monitoring for medical accelerators Narender Kumar, Cockcroft Institute	Development of cold atom electron source in KEK Yosuke Honda, KEK	Dynamic dipole kick due to a rippling sextupole Boris Podobedov, BNL	Review of linear and nonlinear optics measurements in the CERN LHC Ewen Hamish Maclean, CERN
10:30		Coffee Break (30 mins) TWTC	Coffee Break (30 mins) TWTC		Coffee Break (30 mins) TWTC		Coffee Break (30 mins) TWTC		Coffee Break (30 mins) TICC
		101, TICC Chair: Tadashi Koseki	101, TICC Chair: Hong-Wei Zhao	201, TICC Chair: Jie Wei	101, TICC Chair: Peter McIntosh	201, TICC Chair: Nicolas Delerue	101, TICC Chair: Eric Prebys	201, TICC Chair: Prapong Klysubun	101, TICC Chair: Yoichi Sato
11:00		Review of nonlinear resonances in accelerators and storage rings; including a discussion of chaos, particle diffusion and dynamic aperture Shyh-Yuan Lee, Indiana University	Record beam intensity productions of highly charged heavy ions by 28-45 GHz superconducting ECR ion sources at IMP Liangting Sun, IMP	Electron-Ion Collider status Sergei Nagaitsev, BNL	Assessing and increasing the sustainability of future accelerator based facilities Ben Shepherd, STFC	Ultrafast visualization of quasi-three-dimensional electric field of relativistic electron beam Koichi Kan, QST	Reinforcement learning in particle accelerators Andrea Santamaria Garcia, University of Liverpool / Cockcroft Institute	Deceleration of ion beams - Related challenges and opportunities Frank Herfurth, GSI	Latest achievements in femtosecond synchronization of large scale facilities Sebastian Schulz, DESY
11:30		Liquid lithium charge stripping technology: Achievement and lessons learned Takuji Kanemura, FRIB	Experimental generation of petawatt power, extreme electron beams in a particle accelerator Claudio Emma, SLAC	The third long shutdown (LS3) of the CERN accelerator complex Jean-Philippe Tock, CERN	Cryogenic efficiency and sustainability aspects for particle accelerators & detectors Antonio Perin, CERN	Empowering a broad and diverse community in beam dynamics simulations with Xsuite Szymon Lopaciuk, CERN	Development of an RFSoC-based low-level RF controller for an electron linac Hirokazu Maesaka, RIKEN SPring-8	Commissioning 1.7 MW, 1.3 GeV beam for the proton power upgrade at SNS Nicholas Evans, ORNL	BeamPIE – a suborbital test of an accelerator for space applications Quinn Marksteiner, LANL
11:50			Status of the CARIE high gradient photocathode test facility at Los Alamos National Laboratory Evgenya Simakov, LANL	RHIC polarized proton operation in Run24 Kiel Hock, BNL	Active 3rd harmonic RF system for ALBA Francis Perez, ALBA	A module for fast auto differentiable simulations Ji Qiang, LBNL	Development of non-invasive beam diagnostics by quantum optics-based detection Shukui Zhang, Jefferson Lab	FAIR commissioning - Towards first science Stephan Reimann, GSI	
12:00									
12:10		RF acceleration with short pulses: Breaking the high-gradient barrier Xueying Lu, NIU/ANL	Optimization of the Korea-4GSR storage ring for increasing the off-momentum dynamic aperture by analyzing resonance driving terms Junha Kim, PAL	Exceeding high-luminosity LHC performance targets during the 2024 Pb-Pb ion run Roderik Bruce, CERN	Integrating permanent magnets and electromagnets: a hybrid dipole magnet design Yang-Yang Hsu, NSRRC	Off-resonance scheme for highly coupled lattice design in the diffraction-limited light sources Yihao Gong, SSRF	Lunch break (80 mins) TWTC (12:10 -13:30)		Highlights from future circular collider feasibility study and path to construction Frank Zimmermann, CERN
12:30		Lunch break (90 mins) TWTC	Lunch break (90 mins) TWTC		Lunch break (90 mins) TWTC				Closing Remarks (12:30 - 13:30)
13:30									
		101, TICC Chair: Ryoichi Hajima	201, TICC Chair: Zong-Kai Liu	101, TICC Chair: Toru Hara	201, TICC Chair: Jordi Marcos Ruzafa	101, TICC Chair: Yoichi Sato	201, TICC Chair: Adriana Wawrzyniak	101, TICC Chair: In-Soo Ko	Facility Tour (13:30 -) Taiwan Photon Source, National Synchrotron Radiation Research Center or Heavy Ion Therapy Center, Taipei Veterans General Hospital
14:00		ILC accelerator status Hiroshi Sakai, KEK	Overview of permanent magnet implementations for advanced light sources Ciro Calzolaio, PSI	Toward realization of few-cycle free electron lasers: basic concept and its experimental demonstration Takashi Tanaka, RIKEN SPring-8	Carbon ion therapy facility at Taipei Veterans General Hospital Keng-Li Lan, TVGH	Applications of high impedance magnetic alloy Chihiro Ohmori, KEK/J-PARC	Cascaded hard X-ray self-seeded free-electron laser at megahertz repetition rate Shan Liu, DESY	Award Session (13:30 -14:50)	
14:30		Status of the baseline design for a 10 TeV muon collider Daniel Schulte, CERN	Development for various applications at compact ERL as a high-power CW SRF linac in KEK Masahiro Yamamoto, KEK	SPS-II project: Status update Porntip Sudmuang, SLRI	Compact hadron sources and linacs for societal applications Alessandra Lombardi, CERN	Student viewpoints on career pathways John Patrick Salvesen, University of Oxford/CERN Partnership with NSRRC in Taiwan's first heavy ion therapy project Ching-Sheng Liu, Kaohsiung VGH	LCLS-II commissioning and operation with high-repetition-rate CW FELs Yuantao Ding, SLAC	Best Student Poster Award (14:50-15:00)	**Plenary talk**
		101, TICC Chair: Ryoichi Hajima	201, TICC Chair: Zong-Kai Liu	101, TICC Chair: Toru Hara	201, TICC Chair: Jordi Marcos Ruzafa	101, TICC Chair: Tadashi Koseki	201, TICC Chair: Adriana Wawrzyniak	101, TICC Chair: Jui-Che Huang	**MC1** Colliders and Related Accelerators
15:00	Student Poster Session TWTC	Updated baseline design for HALHF: the hybrid, asymmetric, linear Higgs factory Erik Adli, Univ. of Oslo	Nb3Sn cavity development based on vapor deposition method at KEK Hayato Ito, KEK	Operational status and future project of the KEK Photon Factory Takashi Obina, KEK	Communicating environmental sustainability guidelines for large accelerator facilities Hannah Wakeling, John Adams Institute	Design initiatives for a 10 TeV pCM wakefield collider Stewart Boogert, Cockcroft Institute	SLS 2.0 storage ring commissioning Michael Böge, PSI	Entertainment Session (15:00 -15:30) Why Did My Ancestors Leave Taiwan? Futuru C.L. Tsai	**MC2** Photon Sources and Electron Accelerators
15:20		Future e+e- colliders using recycling energy recovery linacs Vladimir Litvinenko, Stony Brook University	Recent developments in the accelerator equipment automation field Konstantinos Papastergiou, CERN	Commissioning of the Advanced Photon Source Upgrade -- the first swap-out injection-based synchrotron light source Vadim Sajaev, ANL	Engineering magnetic carbon nanotubes via swift heavy ion irradiation for spintronics and quantum technologies: XAS and RAMAN study Priyal Singhal, Panjab University		First beam commissioning of the HZB superconducting radio-frequency photoelectron gun Thorsten Kamps, HZB		**MC3** Novel Particle Sources and Acceleration Techniques
15:30						Enhanced proton and neutron production using the ultra-short (24 fs) and high-power (2 PW) Apollon laser facility Julien Fuchs, CNRS		Poster Session / Coffee (15:30-17:30) TWTC	**MC4** Hadron Accelerators
15:40		Observations and efforts to reduce sudden beam loss at SuperKEKB Hitomi Ikeda, KEK	Searches for RF breakdown precursors using cherenkov light in optical fibers Paarangat Pushkarna, Univ. of Melbourne	Evaluation method and countermeasures for the beam loss in fourth-generation light sources Toshihiko Hiraiwa, RIKEN SPring-8	Commissioning of the South African Isotope Facility Hugo Barnard, iThemba LABS		Experimental demonstration of transient-beam-loading compensation using new digital LLRF system at the Photon Factory storage ring Daichi Naito, KEK		**MC5** Beam Dynamics and EM Fields
16:00		Poster Session / Coffee TWTC	Poster Session / Coffee TWTC		Poster Session / Coffee TWTC				**MC6** Beam Instrumentation and Controls, Feedback and Operational Aspects
18:00	Welcome Reception (18:00-20:00) TICC 1F		Productive Research Environment (17:50-20:40) 102, TICC				Conference Banquet (18:45-20:40) Grand HiLai Taipei		**MC7** Accelerator Technology and Sustainability **MC8** Applications of Accelerators, and Engagement for Industry and Society