IPAC' 27 Scientific Program

18th International Particle Accelerator Conference · Huntington Place, Detroit, MI · May 23-28, 2027

Preliminary, subject to change
Version: November 17, 2026
Latest timetable: www.ipac27.org/program/timetable

Time	Sunday May 23	Monday May 24		Tuesday May 25		Wednesday May 26		Thursday May 27		Friday May 28	
		Grand Riverview Ballroom A	Grand Riverview Ballroom B	Grand Riverview Ballroom A	Grand Riverview Ballroom B	Grand Riverview Ballroom A	Grand Riverview Ballroom B	Grand Riverview Ballroom A	Grand Riverview Ballroom B	Grand Riverview Ballroom A	Grand Riverview Ballroom B
09:00–09:30		**From one-of-a-kind technical challenges to first science**, Thomas Glasmacher, Facility for Rare Isotope Beams *Grand Riverview Ballroom B*		**The CERN antiproton programme: present performance and future challenges**, Davide Gamba, European Organization for Nuclear Research	**Non-redundant aperture masking interferometry for joint real-time, two dimensional transverse beam shape measurements, and nm-precision wavefront sensing**, Chris Carilli, National Radio Astronomy Observatory	**Quo vadis X-ray free-electron lasers? Present and future of the most brilliant light sources**, Sven Reiche, Paul Scherrer Institut	**Microscopic dust, macroscopic downtime: the impacts of micron sized particulates in superconducting particle accelerators**, Aveen Mahon, TRIUMF, Canada's particle accelerator center	**From maps to gradients: automatic differentiation for accelerator beam dynamics, beam control, and digital twins**, Jinyu Wan, Institute of High Energy Physics	**Engineering design, challenges, and lessons learned of high-power heavy ion beam dumps**, Samuel Miller, Facility for Rare Isotope Beams	**Design and R&D achievements towards realizing the Electron Ion Collider**, Qiong Wu, Brookhaven National Laboratory *Grand Riverview Ballroom B*	
09:30–10:00		**From design to operation: performance and challenges of 4th generation light sources**, Michael Borland, Argonne National Laboratory *Grand Riverview Ballroom B*								**Accelerator driven subcritical systems: Challenges, projects, future perspectives**, Wenlong Zhan, Institute of Modern Physics *Grand Riverview Ballroom B*	
10:00–10:30		**First beam on target and transitions to operations at ESS**, Camille Ginsburg, European Spallation Source *Grand Riverview Ballroom B*								**Boosting accelerators performance with phase space manipulations**, Massimo Giovannozzi, European Organization for Nuclear Research *Grand Riverview Ballroom B*	
10:30–11:00		**Morning Coffee Break** 10:30–11:00									
11:00–11:30		**Accelerators at Los Alamos: Facilities, Upgrades and Research Portfolio**, Bruce Carlsten, Los Alamos National Laboratory *Grand Riverview Ballroom B*		**High energy electron cooling**, Sergei Seletskiy, Brookhaven National Laboratory	**Beam-driven wakefield acceleration in laser-plasma filament**, Mario Galletti, Italian National Institute for Nuclear Physics	**Advanced beam halo diagnostics for MW-class proton accelerators with a wide-dynamic-range profile monitor**, Yoshinori Hashimoto, High Energy Accelerator Research Organization	**First protons at IOTA: injector performance and the road to intense beam physics**, Alexander Romanov, Fermi National Accelerator Laboratory	**Toward a fully autonomous, AI-native particle accelerator**, Chris Tennant, Thomas Jefferson National Accelerator Facility	**CASPER: a Compact Arbitrary Superconducting Polarisation Emitting Radiator**, Alexandre Arsenault, Paul Scherrer Institut	**Progress and understanding of the limitation of luminosity performance in Super-KEKB**, Gaku Mitsuka, High Energy Accelerator Research Organization *Grand Riverview Ballroom B*	
11:30–12:00		**Overcoming setbacks in pursuit of commissioning of the integrated accelerator complex FAIR & GSI**, Ralph Assmann, GSI Helmholtz Centre for Heavy Ion Research *Grand Riverview Ballroom B*								**First light of SHINE**, Haixiao Deng, Shanghai Advanced Research Institute *Grand Riverview Ballroom B*	
12:00–12:30		**Challenges of in-operando ML for accelerators**, Sasha Zhukov, Oak Ridge National Laboratory *Grand Riverview Ballroom B*								**Unique discovery science enabled by xFELs**, Kelly Gaffney, SLAC National Accelerator Laboratory *Grand Riverview Ballroom B*	
12:30–13:00		**Lunch Break** 12:30–14:00								**Closing Remarks** 12:30–13:00	
13:00–14:00											
14:00–14:30		**Compact free-electron lasers driven by plasma-based accelerators**, Samuel Barber, Lawrence Berkeley National Laboratory	**Methods for full coupling operation in a synchrotron light source**, Michele Carlà, ALBA-CELLS Synchrotron	**Commissioning of accelerator upgrade projects to mitigate beam halo formation in high-power heavy ion linac**, Alec Gonzalez, Facility for Rare Isotope Beams	**Novel septum magnets for next-generation accelerator facility**, Tsutomu Taniuchi, Japan Synchrotron Radiation Research Institute	**TRIUMF-ARIEL: tripling TRIUMF's RIB capabilities**, Luca Egoriti, TRIUMF, Canada's particle accelerator center	**Preclinical tumor control with a laser-accelerated high-energy electron radiotherapy prototype**, Wei Lu, Institute of High Energy Physics	**Award Session** 14:00–16:00		**FRIB Tour** 13:00–17:00	
14:30–15:00		**Toward brighter electron sources - characterization of alkali antimonide photocathode in a high-gradient RF gun**, Renkai Li, Tsinghua University in Beijing	**Scorpius: the world's most advanced electron induction linac**, David Funk, Nevada National Security Site	**Eigenpainting in hadron accumulator rings**, Austin Hoover, Oak Ridge National Laboratory	**Construction and commissioning of the PAL-EUV compact synchrotron for semiconductor applications**, Jun Ho Ko, Pohang Accelerator Laboratory	**Proof of principle of beam chaser collisions at the Experimental Storage Ring (ESR)**, Sergey Litvinov, GSI Helmholtz Centre for Heavy Ion Research	**Detection of high-f gravitational waves using SRF cavities**, Marc Wenskat, University of Hamburg				
15:00–16:00											
16:00–17:00	**Student Poster Session** Hall E · 16:00–18:00	**Poster Session at Hall E** 16:00–18:00									
17:00–18:00											
18:00–19:00	**Welcome Reception** 18:00–20:00										
19:00–20:00								**Conference Banquet** Marriott at the Renaissance Center · 19:00–23:00			
20:00–23:00											

Legend

- Plenary
- MC1 – Colliders & Related Accelerators
- MC2 – Photon Sources & Electron Accelerators
- MC3 – Advanced Acceleration Techniques & Novel Sources
- MC4 – Hadron Accelerators
- MC5 – Beam Dynamics & EM Fields
- MC6 – Beam Instrumentation, Controls & Operations
- MC7 – Accelerator Technology & Sustainability
- MC8 – Applications, Industry & Outreach