

Preliminary schedule

Day	Wed 02/10	Thu 03/10	Fri 04/10	Sat 05/10
	Main auditorium	Main auditorium	Main auditorium	Main auditorium
	Seminar room	Seminar room	Seminar room	
9:00		*T. Gorlov (ORNL): Photoionization of negative hydrogen ion beam	*S. Appel (GSI): Machine learning and advanced accelerator optimisation at GSI/FAIR	*E. Valetov (MSU): Beam dynamics for the Muon g-2 experiment
9:10				S. Alshammari (KACST): Ion optical calculations of high resolution analyzing magnet system for heavy molecular ions at KACST
9:20				D. Paudel (CERN): Data-driven modeling of quenches in superconducting accelerator magnets
9:30				*M. Berz (MSU): Nonlinear beam dynamics tools for field treatment, symplectic tracking and spin in COSY INFINITY
9:40		*L. Ge (SLAC): Integrated simulation of cavity design and radiation transport codes (ACE3P + Geant4)	Y. Isensee (TUDA): Physics-informed bayesian optimization for closed orbit correction in synchrotrons	*Y. Hao (MSU): A Julia package for auto-differentiation application accelerator modeling and tracking
9:50				M. Liebsch (CERN): Integration of magnetic measurement data in magnetic field simulations by BEM-based discrepancy modeling
10:00		S. Udongwo (Uni Rostock): CAV-SIM-2D: a simulation and analysis tool for 2D axisymmetric accelerator cavity geometries	O. Kazinova (TUDA): Beam loss minimization for SIS18 slow extraction	L. Riik: Simulation of driven plasma modes in Penning-Malmberg traps
10:10				E. Paakkunainen (TUDA): Homogenization of HTS magnet coils using the foil conductor model
10:20				
10:30				
10:40				
10:50	Registration & Welcome Coffee	Coffee	Coffee	
11:00				
11:10		*B. Cathey (ORNL): PyORBIT as an online model and virtual accelerator at SNS	*M. Wozniak (CERN): Simulation of quench protection systems of next generation superconduction magnets	*W.-Y. Chang (NSRRC): Computational challenges in the development of a THz FEL at National Synchrotron Radiation Research Center
11:20				*T. Egenolf (TUDA): Fast surrogate models for dielectric laser accelerator diagnostics
11:30		S. Appel (GSI): Data-driven model predictive control for automated optimization of injection into the SIS18 synchrotron	J.-M. Christmann (TUDA): Efficient nonlinear simulations of fast corrector magnets	E. Gjonaj (TUDA): Modeling of intrabeam scattering in electron injectors
11:40		A. M. Guisoa Betanear (University of Liverpool): Longitudinal profile reconstruction of ultrashort electron bunches with coherent transition radiation images and machine learning	D. Moll (TUDA): Transient analysis of fast ramping normal-conducting muon-collider magnets	M. Konrad (FAU): Gradient descent-based optimization of the acceleration field in sub-relativistic dielectric laser accelerators using the adjoint method
11:50				M. Bulgacheva (TUDA): Simulation study of nanostructured copper photocathodes
12:00		E. Musa (DESY): Tuning simulations for FCC-ee using Python Accelerator Toolbox	L. D'Angelo (TUDA): Modeling screening currents in a reduced magnetic vector potential formulation with higher-order magnetic moments	W. An (Beijing Normal University): Recent development on the quasi-static PIC code QuickPIC and QPAD
12:10				J. Christ (TUDA): A self-consistent model for wakefield and space charge calculations
12:20				D. Simeoni (INFN): A Lattice Boltzmann approach to plasma simulation in the context of wakefield acceleration
12:30	Lunch	Lunch	Lunch	Lunch
12:40				
12:50				
13:00				
13:10				
13:20				
13:30	Opening			
13:40				
13:50	*G. Iadarola (CERN): Xsuite: a multiplatform toolbox for optics design, fast tracking, collimation and collective effects	*K. Ruisard (ORNL): Benchmark of LINAC model and phase space measurements at the SNS Beam Test Facility	*F. Van der Veken (CERN): Introducing Xcoll: a streamlined approach to collimation and beam loss simulations using Xsuite	
14:00				
14:10				
14:20	*I. Karpov (CERN): Longitudinal beam dynamics simulations	*S. Y. Teng (NCU): Numerical simulation of a laser plasma driven HGHG FEL	*L. Deniau (CERN): MAD-NG, a standalone multiplatform tool for non-linear optics design and optimisation and successor to MAD-X	
14:30				
14:40	K. Makino (MSU): Rigorous bounds for the errors of high-order transfer maps	L. Thiele (Uni Rostock): Beam-cavity interactions in the rapid cycling synchrotron chain of the future muon collider	M. Signorelli (Cornell University): SciBmad: a full-featured ecosystem for modern, differentiable accelerator physics simulations	
14:50				
15:00	K. Paraschou (CERN): Weak-strong simulations of electron clouds effects from the inner triplets of the Large Hadron Collider		David Sagan (Cornell University): SciBmad Collaboration Discussion	
15:10				
15:20				
15:30				
15:40	Coffee	Coffee	Excursion	
15:50				
16:00	*J. Qiang (LBNL): Advances in modeling space-charge effects	*Y. Liu (LBNL): Green's function-based methods for modeling electromagnetic interaction between RF accelerator cavity and electron bunch	*C. Mitchell (LBNL): Tools for modeling beam dynamics in rings based on nonlinear integrable optics	
16:10				
16:20		F. Quetscher (TUDA): Schwarz domain decomposition with the modal transmission condition applied to an in-vacuum undulator at PETRA III, DESY	C. Xu (KIT): Cheetah - a high-speed differentiable beam dynamics simulation for machine learning applications	A. Alrashdi (KACST): Applications of gamma-rays at future intense positron sources
16:30	*M. Schenk (CERN): Automation and AI integration at the CERN injectors	E. de la Fuente Garcia (CERN): "wakis": an open-source 3D time-domain electromagnetic solver for beam-coupling impedance calculation	E. Valetov (MSU): New muon campus simulations for the muon g-2 experiment at Fermilab	K. S. Alharbi (KACST): Investigating the appropriateness of a shorter period of a non-ideal helical undulator for the ILC-250 stage
16:40				
16:50				
17:00	N. Cook (RadiaSoft): Coupled simulations of collimator irradiation in fourth generation light sources	L. Kronhorst (TUDA): Calculating the transverse shunt impedance from eigenmode results	S. Sorge (GSI): Determination of uncontrolled beam loss and spill micro structures during slow extraction for the future FAIR synchrotron SIS100 with particle tracking	David Sagan (Cornell University): Accelerator Physics Simulation Development Collaboration Discussion
17:10				
17:20				

Color code = conference topic

A-1
A-2
B-1
B-2
C-1
C-2
D-1
D-2
E-1
E-2
F-1

Invited talks

30 minutes including questions

Contributed talks

20 minutes including questions