



# 14th International Computational Accelerator Physics Conference

## Wednesday 02 October 2024

### Sessions in Seminar Room 2013/2014: C2: Session 1 - Seminar Room 2013/2014 (16:00-17:30)

**-Conveners: Erion Gjonaj**

time	[id] title	presenter
16:00	[39] Green's Function-based Methods for Modeling Electromagnetic Interaction Between RF Accelerator Cavity and Electron Bunch	LIU, Yang
16:30	[42] Schwarz Domain Decomposition with the Modal Transmission Condition Applied to an In-Vacuum Undulator at PETRA III, DESY	QUETSCHER, Frederik
16:50	[29] "wakis": An Open-Source 3D Time-Domain Electromagnetic Solver for Beam-Coupling Impedance Calculation	DE LA FUENTE GARCIA, Elena
17:10	[20] Calculating the transverse shunt impedance from eigenmode results	KRONSHORST, Leon

# Thursday 03 October 2024

## Sessions in Seminar Room 2013/2014: E2: Session 1 - Seminar Room 2013/2014 (09:00-10:30)

**-Conveners: Oliver Boine-Frankenheim**

time	[id] title	presenter
09:00	[18] Machine learning and advanced accelerator optimisation at GSI/FAIR	APPEL, Sabrina
09:30	[10] Physics-informed Bayesian Optimization for Closed Orbit Correction in Synchrotrons	ISENSEE, Victoria
09:50	[19] Beam loss minimization for SIS18 slow extraction	KAZINOVA, Olha
10:10	[48] Gradient based beam line optimization for laser-accelerated ions using surrogate models	DEWITT, Daniel

## Sessions in Seminar Room 2013/2014: C2: Session 2 - Seminar Room 2013/2014 (11:00-12:30)

**-Conveners: Herbert De Gerssem**

time	[id] title	presenter
11:00	[30] Simulation of quench protection systems of next-generation superconducting magnets	WOZNIAK, Mariusz
11:30	[7] Efficient Nonlinear Simulations of Fast Corrector Magnets	Mr CHRISTMANN, Jan-Magnus
11:50	[36] Transient analysis of fast ramping normal-conducting muon-collider magnets	MOLL, Dominik
12:10	[8] Modeling Screening Currents in a Reduced Magnetic Vector Potential Formulation with Higher-Order Magnetic Moments	D'ANGELO, Laura

## Sessions in Seminar Room 2013/2014: F1: Session 1 - Seminar Room 2013/2014 (14:00-15:40)

**-Conveners: David Sagan**

time	[id] title	presenter
14:00	[41] Introducing Xcoll: a Streamlined Approach to Collimation and Beam Loss Simulations Using Xsuite	VAN DER VEKEN, Frederik
14:30	[16] MAD-NG, a standalone multiplatform tool for non-linear optics design and optimisation.	DENIAU, Laurent
15:00	[4] SciBmad: A full-featured ecosystem for modern, differentiable accelerator physics simulations	SIGNORELLI, Matthew SAGAN, David
15:20	[64] SciBmad Collaboration Discussion	SAGAN, David

## Sessions in Seminar Room 2013/2014: B1: Session 1 - Seminar Room 2013/2014 (16:00-17:30)

**-Conveners: Wei-Yuan Chiang**

time	[id] title	presenter
16:00	[5] Simulation advances in Coherent Synchrotron Radiation modeling	HUANG, Chengkun
16:30	[6] Applications of gamma-rays at future intense positron sources	Dr ALRASHDI, Ayash
16:50	[23] Investigating the Appropriateness of a Shorter Period of a Non-ideal Helical Undulator for the ILC-250 Stage	ALHARBI, Khaled Snad ALRASHDI, Ayash

17:10	[65] Accelerator Physics Simulation Development Collaboration Discussion	SAGAN, David
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# Friday 04 October 2024

## Sessions in Seminar Room 2013/2014: C1 & C2: Combined session - Seminar Room 2013/2014 (09:00-10:20)

**-Conveners: Mariusz Wozniak**

time	[id] title	presenter
09:00	[12] Ion optical calculations of high resolution analyzing magnet system for heavy molecular ions at KACST	Dr ALSHAMMARI, S. Dr ALKADI, M. Dr ALRASHDI, A.
09:20	[22] Data-Driven Modeling of Quenches in Superconducting Accelerator Magnets	PAUDEL, Deepak
09:40	[33] Integration of magnetic measurement data in magnetic field simulations by BEM-based discrepancy modeling	LIEBSCH, Melvin
10:00	[61] Homogenization of HTS magnet coils using the foil conductor model	PAKKUNAINEN, Elias

## Sessions in Seminar Room 2013/2014: B2: Session 1 - Seminar Room 2013/2014 (11:00-12:30)

**-Conveners: Oliver Boine-Frankenheim**

time	[id] title	presenter
11:00	[53] Fast surrogate models for dielectric laser accelerator diagnostics	EGENOLF, Thilo
11:30	[44] Gradient descent-based optimization of the acceleration field in sub-relativistic dielectric laser accelerators using the adjoint method	Mr KONRAD, Manuel
11:50	[49] Recent development on the quasi-static PIC code QuickPIC and QPAD	AN, Weiming
12:10	[62] A Lattice Boltzmann approach to plasma simulation in the context of wakefield acceleration	Dr SIMEONI, Daniele