



# 6th European Advanced Accelerator Concepts workshop

## Monday, 18 September 2023

### WG3: Theory and simulations - Aula Bonaparte 2 (16:20 - 19:00)

-Conveners: Maxence Thevenet; Andrea Renato Rossi

time	[id] title	presenter
16:20	[394] Introduction to WG3 first session	ROSSI, Andrea Renato THEVENET, Maxence
16:25	[182] Energy conserving theory of plasma blowout	Dr GOLOVANOV, Anton
16:45	[339] Accurate electron beam phase-space theory for ionization injection schemes	TOMASSINI, Paolo
17:05	[228] A Lattice Boltzmann approach to plasma simulation in the context of wakefield acceleration	SIMEONI, Daniele
17:25	[335] Optimised density tailoring for dephasing mitigation in laser wakefield accelerators	STREETER, Matthew
17:45	[271] Start-to-end simulations of HOFI waveguides	MEWES, Mathis
18:05	[181] Transverse envelope dynamics of beam slices in a uniform charged ellipsoidal model of the plasma bubble regime	Dr MANNAN, Abdul
18:25	[439] discussion	

# Wednesday, 20 September 2023

## **WG3: Theory and simulations - Aula Elena (16:20 - 19:00)**

**-Conveners: Andrea Renato Rossi; Maxence Thevenet**

time	[id] title	presenter
16:20	[395] Introduction to WG3 second session	ROSSI, Andrea Renato THEVENET, Maxence
16:25	[317] Affordable simulations of collider-relevant plasma-based accelerators (and more) with mesh refinement	THEVENET, Maxence
16:45	[285] Exascale and ML Models for Accelerator Simulations	Dr HUEBL, Axel
17:05	[211] DiWaCAT: An Efficient Field Solver and Beam Tracker for Dielectric Wakefield Acceleration Applications	OVERTON, Toby
17:25	[283] Latest algorithmic advances in the Exascale Particle-In-Cell code WarpX	VAY, Jean-Luc
17:45	[315] Beam Reproducibility in a Density Downramp Plasma Wakefield Accelerator	SCHROEDER, Sarah
18:05	[254] Recent progress in the modeling of laser wakefield acceleration	MASSIMO, Francesco
18:25	[338] Unravelling ultrashort dynamics of plasma-based accelerators -- leveraging synthetic diagnostics to match PIC simulations with experimental data	DEBUS, Alexander