# **Session Program**

21-27 Sept 2025

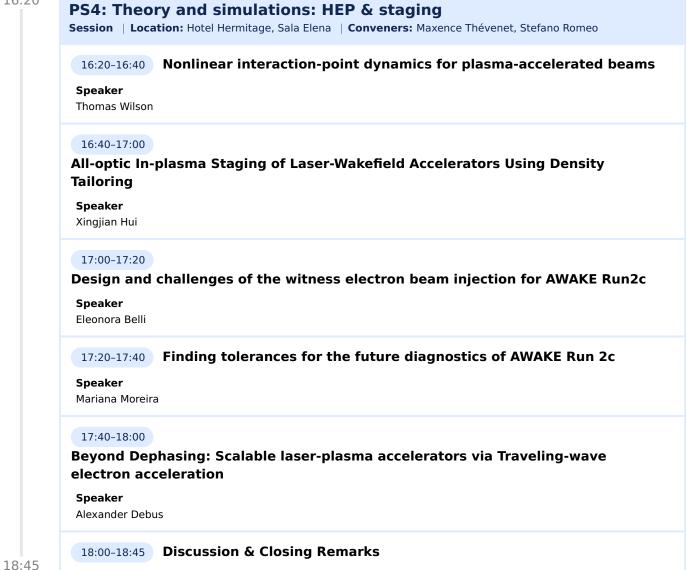
# EAAC2#25

# 7th European Advanced Accelerator Conference

**PS4: Theory and simulations** 

Hotel Hermitage, La Biodola Bay, Isola d'Elba, Italy La Biodola Bay - 57037 Portoferraio Isola d'Elba (Li) - Italy

## **Monday 22 September**



#### **Tuesday 23 September**

16:20

#### **PS4: Theory and simulations: Methods**

Session | Location: Hotel Hermitage, Sala Elena | Conveners: Stefano Romeo, Maxence Thévenet

16:20-16:40

ABEL: A Start-to-End Simulation and Optimisation Framework for Plasma-Based **Accelerators and Colliders** 

Speaker

Dr Jian Bin Ben Chen

16:40-17:00

Open boundary conditions for the time-averaged ponderomotive approximation in Particle-In-Cell codes

Speaker

Arnaud Beck

17:00-17:20

Mainstreaming Start-to-End Realistic Simulations in Plasma Accelerator Research

Speaker

Maxence Thevenet

17:20-17:40

Modeling laser-wakefield accelerators using the time-averaged ponderomotive approximation in a Lorentz boosted frame

Speaker

Francesco Massimo

17:40-18:00

Galilean Electromagnetic (GEM) PIC code for highly efficient simulations of LWFA and PWFA

**Speaker** 

Prof. Alexander Pukhov

18:00-18:20 Recent progress on QuickPIC and QPAD

Speaker

Weiming An

18:20-18:45 **Discussion & Closing Remarks** 

# **Wednesday 24 September**

16:20

#### PS4: Theory and simulations: Beams & applications

Session | Location: Hotel Hermitage, Sala Elena | Conveners: Maxence Thévenet, Stefano Romeo

16:20-16:40

Unlocking High-Dimensional Parameter Spaces: Bayesian Optimization in Beam-Driven Plasma Accelerators

Speaker

Alessio Del Dotto

16:40-17:00

Microbunching Instability Studies: a Semi-Analytical Insights for EuPRAXIA@SPARC\_LAB

Speaker

Giovanni Campri

17:00-17:20

Acceleration-Induced Self-Interactions of Ultra-Short Electron Bunches

Speaker

Ryan Mcguigan

17:20-17:40

Parametric mapping of the efficiency-instability relation in plasma-wakefield accelerators

Speaker

Ole Gunnar Finnerud

17:40-18:00 Synthetic Radiation Diagnostic in Hybrid LPWFA

Speaker

Finn-Ole Carstens

18:00-18:45 Discussion & Closing Remarks

## **Thursday 25 September**

16:20

