

## **Session Program**

**Sep 13 - 19, 2015**



## **2nd European Advanced Accelerator Concepts Workshop**

### ***WG6 - Theory and simulations***

La Biodola, Isola d'Elba

[Hotel Hermitage](http://www.elba4star.it/en/)

## Wed, September 16

4:00 PM

### WG6 - Theory and simulations

**Session** | **Location:** Hotel Hermitage, SB2 Sala Bonaparte 2 | **Conveners:** Prof. Konstantin Lotov, Jean-Luc Vay

4:00 – 4:20 PM **hybrid-code and PIC-code simulations for PWFA at SPARC\_LAB**

**Speaker**

Alberto Marocchino

4:20 – 4:40 PM

**Architect: a 2D hybrid kinetic-fluid code for Plasma Wake Field Acceleration**

**Speaker**

Mr Francesco Massimo

4:40 – 5:00 PM

**SMILEI, an open source PIC code with focus on load balancing issues**

**Speaker**

Dr Arnaud Beck

5:00 – 5:20 PM

**High-performance modeling of plasma-based acceleration using the full PIC method**

**Speaker**

Jean-Luc Vay

5:20 – 5:30 PM

**Discussion**

5:30 PM

6:00 PM

### WG6 - Theory and simulations

**Session** | **Location:** Hotel Hermitage, SB2 Sala Bonaparte 2 | **Conveners:** Prof. Konstantin Lotov, Jean-Luc Vay

6:00 – 6:20 PM

**Beam loading and betatron radiation from a bubble in a deep plasma channel**

**Speaker**

Anton Golovanov

6:20 – 6:40 PM

**Self modulated dynamics of a relativistic charged particle beam in plasma wake field excitation**

**Speaker**

Mrs Tahmina Akhter

6:40 – 7:00 PM

**Self-modulation of long particle beams in plasma wakefield accelerators**

**Speaker**

Prof. Konstantin Lotov

7:00 – 7:30 PM

**Discussion**

7:30 PM

## Thu, September 17

4:00 PM

### WG6 - Theory and simulations

**Session** | **Location:** Hotel Hermitage, SB2 Sala Bonaparte 2 | **Conveners:** Prof. Konstantin Lotov, Jean-Luc Vay

4:00 – 4:20 PM

#### Phase space moment equation model of highly relativistic electron beams in plasma wakefield accelerators

**Speaker**

Prof. Robert Robson

4:20 – 4:40 PM

#### The concept of coupling impedance in the plasma wake field excitation as a new tool for describing the self-consistent interaction between the driving beam with the surrounding plasma

**Speaker**

Prof. Renato Fedele

4:40 – 5:00 PM

#### Quantum dynamics of relativistic charged particles interacting with a laser-induced plasmon wave

**Speaker**

Prof. Sandor Varro

5:00 – 5:30 PM

#### Discussion

5:30 PM

6:00 PM

### WG6 - Theory and simulations

**Session** | **Location:** Hotel Hermitage, SB2 Sala Bonaparte 2 | **Conveners:** Prof. Konstantin Lotov, Jean-Luc Vay

6:00 – 6:20 PM

#### The Dynamics of Electron Bunches at Enhancement of Laser Plasma Wakefield Acceleration by Beam Plasma Wakefield Acceleration

**Speaker**

Ms Olena Svystun

6:20 – 6:40 PM

#### Laser-plasma acceleration: A close view on self-injection mechanisms

**Speaker**

Daniele Palla

6:40 – 7:00 PM

#### Simulation of Errors in Multi-Pulse Laser Wakefield Acceleration

**Speaker**

Mr Christopher Arran

7:00 – 7:20 PM

#### Hot electron currents in ultra-intense laser-solid interactions

**Speaker**

Thomas Kluge

7:20 – 7:30 PM

#### Discussion

7:30 PM