Session Program

Nov 6 – 11, 2022

20th Advanced Accelerator Concepts Workshop

WG1: Laser-Plasma Wakefield Acceleration

Hyatt Regency Long Island
1717 Motor Parkway Hauppauge, New York 11788

Mon, November 7

1:30 PM

WG1: Laser-Plasma Wakefield Acceleration: Session 1

Session | **Location:** Salon D | **Conveners:** Marlene Turner, Irina Petrushina, Yong Ma

1:30 – 1:50 PM

Nearly collinear optical injection of electrons into wakefield accelerators

Speaker
Qiang Chen

1:50 – 2:10 PM

Generating pre-bunched electron beams using modulated density downramp injection

Speaker
Chaojie Zhang

2:10 – 2:30 PM

External injection of electrons into a laser-driven plasma wakefield at the CLARA facility

Speaker
Laura Corner

2:30 – 2:50 PM

First results of the two-color LWFA experiments at ATF

Speaker
Navid Vafaei-Najafabadi

3:00 PM

Tue, November 8

1:30 PM

WG1: Laser-Plasma Wakefield Acceleration: Session 3

Session | **Location:** Salon D | **Conveners:** Yong Ma, Irina Petrushina, Marlene Turner

1:30 – 1:50 PM

Optical mode filtering and electron injection in multi-GeV laser wakefield acceleration

Speaker
Jaron Shrock

1:50 – 2:10 PM

Observation of resonant wakefield excitation by pulse trains guided in long plasma channels

Speaker
Aimee Ross

2:10 – 2:30 PM

GeV-scale accelerators driven by plasma-modulated pulses from kilohertz lasers.

Speaker
Roman Walczak

2:30 – 2:50 PM

Arbitrarily Structured Laser Pulses

Speaker
Jacob Pierce

3:00 PM

3:30 PM

WG1: Laser-Plasma Wakefield Acceleration: Session 4

Session | **Location:** Salon D | **Conveners:** Marlene Turner, Irina Petrushina, Yong Ma

3:30 – 3:50 PM

kHz Laser-Driven Electron Beams up to 50 MeV at ELI-Beamlines.

Speaker
Carlo Maria Lazzarini

3:50 – 4:10 PM

CO2-laser-driven wakefield acceleration

Speaker
Dr Rafal Zgadzaj

4:10 – 4:30 PM

Self-injection process in laser-wakefield accelerator driven by CO$_2$ laser pulses

Speaker
Arohi Jain

4:30 – 4:50 PM

High-efficiency compact laser-plasma electron accelerator

Speaker
Matthias Fuchs

5:00 PM

Thu, November 10

8:30 AM

WG1: Laser-Plasma Wakefield Acceleration: Session 6

Session | **Location:** Salon D | **Conveners:** Irina Petrushina, Marlene Turner, Yong Ma

8:30 – 8:50 AM

Experimental demonstration of Hydrodynamic Optical-Field-Ionized plasma channels at kHz repetition rate

Speaker
James Cowley

8:50 – 9:10 AM

Laser Wakefield Acceleration to Electron Energies in the GeV Regime

Speaker
Katinka von Grafenstein

9:10 – 9:30 AM

GeV electron bunches in low-density plasma channels by all-optical density transition injection

Speaker
Alex Picksley

9:30 – 9:50 AM

Spatiotemporal optical vortices (STOVs) and relativistic optical guiding

Speaker
Manh Le

10:00 AM

1:30 PM

WG1: Laser-Plasma Wakefield Acceleration: Session 8

Session | **Location:** Salon D | **Conveners:** Yong Ma, Irina Petrushina, Marlene Turner

1:30 – 1:50 PM

Single-Shot Reconstruction of Electron Beam Phase-Space in a Laser Wakefield Accelerator

Speaker
Yong Ma

1:50 – 2:10 PM

Data-driven modelling of laser-plasma experiments enabled by large datasets

Speaker
Mr André Antoine

2:10 – 2:30 PM

Polarization and CEP Dependence of the Transverse Phase-Space in Laser-Driven Accelerators

Speaker
Andreas Seidel

2:30 – 2:50 PM

Stable injection into a laser plasma accelerator with colliding laser pulses

3:00 PM

Speaker
Qiang Chen