

**2nd Townhall Meeting High  
Gradient Accelerator  
Plasma/Laser**

**Report of Contributions**

Contribution ID: 1

Type: **not specified**

## Welcome and Introduction

*Friday 21 May 2021 09:00 (5 minutes)*

**Presenters:** ASSMANN, Ralph Wolfgang (DESY); GSCHWENDTNER, Edda (CERN)

Contribution ID: 2

Type: **not specified**

## **Ultra-low emittance round beams with multi-pulse ionization injection schemes**

*Friday 21 May 2021 09:10 (10 minutes)*

**Presenter:** TOMASSINI, Paolo

**Session Classification:** Beam shape, quality, diagnostics

Contribution ID: 3

Type: **not specified**

## **Polarized particle beams from laser-plasma accelerators**

*Friday 21 May 2021 09:25 (10 minutes)*

**Presenter:** BÜSCHER, Markus (Forschungszentrum Jülich)

**Session Classification:** Beam shape, quality, diagnostics

Contribution ID: 4

Type: **not specified**

## **Coherent transition radiation-based emittance diagnostics**

*Friday 21 May 2021 09:40 (10 minutes)*

**Presenter:** LABERGE, Max

**Session Classification:** Beam shape, quality, diagnostics

Contribution ID: 5

Type: **not specified**

## **Optical probe of energy dissipation from e-beam driven plasma wakes**

*Friday 21 May 2021 09:55 (10 minutes)*

**Presenter:** ZGADZAJ, Rafal

**Session Classification:** Beam shape, quality, diagnostics

Contribution ID: 7

Type: **not specified**

## **Strong electron beam focusing with passive, underdense plasma lenses**

*Friday 21 May 2021 10:10 (10 minutes)*

**Presenter:** DOSS, Christopher (University of Colorado Boulder)

**Session Classification:** Beam shape, quality, diagnostics

Contribution ID: 8

Type: **not specified**

## **Coherent combination of high-power fiber lasers for laser-plasma-based collider applications**

*Friday 21 May 2021 10:45 (10 minutes)*

**Presenter:** ZHOU, Tong

**Session Classification:** Efficiency, drivers



Contribution ID: 9

Type: **not specified**

## **Roadmap for high average power ultrashort laser**

*Friday 21 May 2021 11:00 (10 minutes)*

**Presenter:** FALCOZ, franck (amplitude technologies)

**Session Classification:** Efficiency, drivers

Contribution ID: **10**

Type: **not specified**

## **High average power laser-plasma acceleration**

*Friday 21 May 2021 11:15 (10 minutes)*

**Presenter:** MAIER, Andreas (Universität Hamburg)

**Session Classification:** Efficiency, drivers

Contribution ID: 11

Type: **not specified**

## **MP-LWFA to improve LPA repetition rate and efficiency / European Network for Novel Accelerators (EuroNNAc)**

*Friday 21 May 2021 11:30 (10 minutes)*

**Presenter:** WALCZAK, Roman

**Session Classification:** Efficiency, drivers

Contribution ID: 12

Type: **not specified**

## **Towards PW scale laser driver with 100 Hz / Update on the design of a kHz-KW laser driver for plasma acceleration**

*Friday 21 May 2021 11:45 (10 minutes)*

**Presenter:** Dr GIZZI, Leonida Antonio (Leo) (CNR, Istituto Nazionale di Ottica, Pisa, Italy)

**Session Classification:** Efficiency, drivers

Contribution ID: 13

Type: **not specified**

## **Low-loss, metre-scale plasma channels for high-repetition rate plasma accelerators**

*Friday 21 May 2021 12:00 (10 minutes)*

**Presenter:** HOOKER, Simon (University of Oxford)

**Session Classification:** Efficiency, drivers

Contribution ID: 14

Type: **not specified**

## **Strategy for enabling plasma-based accelerators to drive first particle-physics applications**

*Friday 21 May 2021 14:00 (10 minutes)*

**Presenter:** LEEMANS, Wim (DESY)

**Session Classification:** Various/Strategic

Contribution ID: 15

Type: **not specified**

## **EuPRAXIA - Proposal for a distributed research facility towards the realization of a FEL plasma based accelerator, organization, current status and outlook**

*Friday 21 May 2021 14:15 (10 minutes)*

**Presenter:** FALONE, Antonio (INFN - National Institute for Nuclear Physics)

**Session Classification:** Various/Strategic

Contribution ID: 16

Type: **not specified**

## **Light-source applications of advanced accelerators**

*Friday 21 May 2021 14:30 (10 minutes)*

**Presenter:** EMMA, Claudio

**Session Classification:** Various/Strategic



Contribution ID: 17

Type: **not specified**

## **Exploring the fully no-perturbative regime of QED at a Future Linear Collider**

*Friday 21 May 2021 14:45 (10 minutes)*

**Presenter:** MEUREN, Sebastien

**Session Classification:** Various/Strategic

Contribution ID: 18

Type: **not specified**

## **Towards an integrated design study for a Plasma Linear Collider / Positron plasma wakefield acceleration research at FACET-II**

*Friday 21 May 2021 15:00 (10 minutes)*

**Presenter:** GESSNER, Spencer

**Session Classification:** Various/Strategic

Contribution ID: 19

Type: **not specified**

## **Plasma wakefield acceleration at FACET-II / GARD beam test facilities in the US**

*Friday 21 May 2021 15:15 (10 minutes)*

**Presenter:** HOGAN, Mark (SLAC)

**Session Classification:** Various/Strategic

Contribution ID: 20

Type: **not specified**

## **High-average power beam driven plasma acceleration**

*Friday 21 May 2021 16:00 (10 minutes)*

**Presenter:** D'ARCY, Richard (DESY)

**Session Classification:** Staging, stability, beam quality

Contribution ID: 21

Type: **not specified**

## **Increase of the energy gain in a laser-plasma accelerator stage**

*Friday 21 May 2021 16:15 (10 minutes)*

**Presenter:** THAURY, Cedric (CNRS)

**Session Classification:** Staging, stability, beam quality

Contribution ID: 22

Type: **not specified**

## High beam quality R&D at SPARC\_Lab

*Friday 21 May 2021 16:30 (10 minutes)*

**Presenter:** CHIADRONI, Enrica (INFN - National Institute for Nuclear Physics)

**Session Classification:** Staging, stability, beam quality

Contribution ID: 23

Type: **not specified**

## **Staging of plasma accelerators for high-energy, stability and beam quality**

*Friday 21 May 2021 16:45 (10 minutes)*

**Presenter:** Dr LINDSTRØM, Carl A. (DESY)

**Session Classification:** Staging, stability, beam quality

Contribution ID: 24

Type: **not specified**

## **Ion motion, hosing suppression and beam quality preservation in plasma-based accelerators**

*Friday 21 May 2021 17:00 (10 minutes)*

**Presenter:** BENEDETTI, Carlo (LBNL)

**Session Classification:** Staging, stability, beam quality



Contribution ID: 25

Type: **not specified**

## **EuPRAXIA solutions and plans for a plasma-based accelerator with high beam quality**

*Friday 21 May 2021 17:15 (10 minutes)*

**Presenter:** NGHIEM, Phi

**Session Classification:** Staging, stability, beam quality

Contribution ID: 26

Type: **not specified**

## Discussion and Close-Out

*Friday 21 May 2021 17:30 (30 minutes)*

Contribution ID: 27

Type: **not specified**

## Discussion

*Friday 21 May 2021 12:15 (15 minutes)*

**Session Classification:** Efficiency, drivers