

# **EuPRAXIA - Yearly Meeting 2017 and 2nd Collaboration Week**



## **Report of Contributions**

Contribution ID: 1

Type: **not specified**

# Welcome

*Monday 20 November 2017 14:00 (5 minutes)*

**Presenter:** SILVA, Luis (Instituto Superior Técnico, Lisbon)

**Session Classification:** Welcome and practical information

Contribution ID: 2

Type: **not specified**

## Practical information

*Monday 20 November 2017 14:05 (10 minutes)*

**Presenter:** MINNIBERGER, Tom (DESY)

**Session Classification:** Welcome and practical information

Contribution ID: 3

Type: **not specified**

## Overall status and WP1 update

*Monday 20 November 2017 14:15 (30 minutes)*

**Presenter:** ASSMANN, Ralph Wolfgang (DESY)

**Session Classification:** WP Updates

Contribution ID: 4

Type: **not specified**

## **Outreach and Liaison (WP8)**

*Monday 20 November 2017 14:50 (20 minutes)*

**Presenter:** TORRES, Ricardo (University of Liverpool)

**Session Classification:** WP Updates

Contribution ID: 5

Type: **not specified**

## Physics and Simulation (WP2)

*Monday 20 November 2017 15:15 (25 minutes)*

**Presenter:** NGHIEM, Phi

**Session Classification:** WP Updates

Contribution ID: 6

Type: **not specified**

## **High Gradient LPA Structure (WP3)**

*Monday 20 November 2017 16:00 (25 minutes)*

**Presenter:** CROS, Brigitte (LPGP CNRS)

**Session Classification:** WP Updates

Contribution ID: 7

Type: **not specified**

## **Beam Design and Optimization (WP5)**

*Monday 20 November 2017 16:30 (25 minutes)*

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

**Session Classification:** WP Updates



Contribution ID: 8

Type: **not specified**

## **Baseline parameters, facility layout & site studies**

*Monday 20 November 2017 17:00 (25 minutes)*

**Presenter:** WALKER, Paul Andreas (DESY)

**Session Classification:** WP Updates

Contribution ID: 9

Type: **not specified**

## **Laser Design and Optimization (WP4)**

*Tuesday 21 November 2017 09:00 (40 minutes)*

**Presenter:** GIZZI, Leonida Antonio (Leo) (CNR and INFN)

**Session Classification:** WP Updates

Contribution ID: **10**

Type: **not specified**

## **FEL Pilot application (WP6)**

*Tuesday 21 November 2017 09:45 (15 minutes)*

**Presenter:** NGUYEN, Federico (INFN)

**Session Classification:** WP Updates

Contribution ID: 12

Type: **not specified**

## **HEP & other Pilot Applications (WP7)**

*Tuesday 21 November 2017 10:05 (15 minutes)*

**Presenter:** WALCZAK, Roman

**Session Classification:** WP Updates

Contribution ID: 13

Type: **not specified**

## **Alternative e-Beam Driven Plasma Structure (WP9)**

*Tuesday 21 November 2017 10:25 (10 minutes)*

**Presenter:** FERRARIO, massimo (INFN-LNF)

**Session Classification:** WP Updates

Contribution ID: 14

Type: **not specified**

## **Use of Other Novel Technologies (WP10)**

*Tuesday 21 November 2017 11:00 (10 minutes)*

**Presenters:** DORDA, Ulrich (DESY); Dr XIA, guoxing (University of Manchester)

**Session Classification:** WP Updates

Contribution ID: 15

Type: **not specified**

## **FEL Application Prototyping (WP11)**

*Tuesday 21 November 2017 11:15 (10 minutes)*

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

**Session Classification:** WP Updates

Contribution ID: 16

Type: **not specified**

## **Acc. Prototyping & Exp. Test Facilities (WP12)**

*Tuesday 21 November 2017 11:30 (10 minutes)*

**Presenter:** MOSTACCI, Andrea (Sapienza University of Rome e INFN-Roma I (IT))

**Session Classification:** WP Updates



Contribution ID: 17

Type: **not specified**

## **Alternative Radiation Generation (WP13)**

*Tuesday 21 November 2017 15:30 (10 minutes)*

**Presenters:** JAROSZYNSKI, Dino (University of Strathclyde); VIEIRA, Jorge (Instituto Superior Técnico)

**Session Classification:** Plenary

Contribution ID: 18

Type: **not specified**

## **Hybrid Laser-Electron-Beam Driven Acc. (WP14)**

*Tuesday 21 November 2017 15:45 (10 minutes)*

**Presenter:** HIDDING, Bernhard (Strathclyde)

**Session Classification:** Plenary

Contribution ID: 19

Type: **not specified**

## **Diagnostics for EuPRAXIA accelerator**

*Tuesday 21 November 2017 16:00 (25 minutes)*

**Presenter:** CIANCHI, Alessandro (INFN - Sezione Roma Tor Vergata)

**Session Classification:** Plenary

Contribution ID: 20

Type: **not specified**

## **EuPRAXIA@SPARC\_LAB**

*Wednesday 22 November 2017 14:00 (25 minutes)*

**Presenter:** FERRARIO, massimo (INFN-LNF)

**Session Classification:** Plenary

Contribution ID: 21

Type: **not specified**

## **R&D on lasers and plasmas at GoLP**

*Wednesday 22 November 2017 11:00 (45 minutes)*

**Presenter:** SILVA, Luis (Instituto Superior Técnico, Lisbon)

**Session Classification:** Plenary

Contribution ID: 22

Type: **not specified**

## **Laser R&D required for EuPRAXIA**

*Wednesday 22 November 2017 15:00 (25 minutes)*

**Presenters:** MATHIEU , Francois (LULI); GIZZI, Leonida Antonio (Leo) (CNR and INFN)

**Session Classification:** Plenary

Contribution ID: 23

Type: **not specified**

## **Advancements at ELI Beamlines: Status of the user facility development**

*Wednesday 22 November 2017 14:30 (25 minutes)*

**Presenter:** PRIBYL, Lukas (CERN)

**Session Classification:** Plenary

Contribution ID: 24

Type: **not specified**

## **LWFA studies at the Lund Laser Centre**

**Presenter:** LUNDH, Olle (Lund University)

**Session Classification:** Plenary



Contribution ID: 25

Type: **not specified**

## **SAC report**

*Wednesday 22 November 2017 16:00 (45 minutes)*

**Presenter:** BISCARI, Caterina

**Session Classification:** Plenary

Contribution ID: 26

Type: **not specified**

## **Review CDR layout and process**

*Thursday 23 November 2017 09:00 (15 minutes)*

**Presenter:** ASSMANN, Ralph Wolfgang (DESY)

**Session Classification:** Plenary

Contribution ID: 27

Type: **not specified**

## **ESFRI roadmap**

*Friday 24 November 2017 09:00 (20 minutes)*

**Presenter:** BROTTIER, Franck (Euroopportunities OÜ)

**Session Classification:** ESFRI roadmap application and WP summaries

Contribution ID: 28

Type: **not specified**

## Short view from WP leaders

*Friday 24 November 2017 09:30 (1 hour)*

WP leaders, 1 slide each

**Session Classification:** ESFRI roadmap application and WP summaries

Contribution ID: 29

Type: **not specified**

## Short view from WP leaders

*Friday 24 November 2017 11:00 (1 hour)*

WP leaders, 1 slide each

**Session Classification:** WP summaries continued

Contribution ID: 32

Type: **not specified**

## **WP2 & WP5 & WP6 & WP7 & WP3**

*Wednesday 22 November 2017 17:15 (1h 40m)*

17:15 Start-to-end simulations for laser driven external injection (A. R. Rossi) 15+5  
17:35 Start-to-end simulations with comb technique for PWFA (A. Marocchino) 15+5  
17:55 Data analysis and relevant beam parameters calculation (A.R. Rossi) 15+5  
18:15 Overall discussions (Phi Nghiem) (20 min)  
18:35 WP7 beams and positrons (R. Walczak) 15+5

**Presenters:** CHIADRONI, Enrica (INFN - National Institute for Nuclear Physics); NGHIEM, Phi

**Session Classification:** Pre-WP meetings (WP2 & WP5 & WP6 & WP7 & WP3; Location: IST Congress Centre, Floor02, Room: 02.1 and/or 02.3)

Contribution ID: 33

Type: **not specified**

## **WP1/2/3/4/5/7/9**

*Thursday 23 November 2017 10:30 (2 hours)*

10:30 Laser requirements for resonant scheme (P. Tomassini)

10:50 Stabilization requirements (Z. Mazzotta)

11:10 Synchronization (P. Koester)

11:30 Laser specifications: Discussion (all)

12:00 Infrastructure: Discussion (all)

12:20 WP2-WP3 interactions (P. Nghiem)

**Presenter:** GIZZI, Leonida Antonio (Leo) (CNR and INFN)

**Session Classification:** WP Meetings

Contribution ID: 34

Type: **not specified**

## **WP2/3/4/5/7/9**

*Thursday 23 November 2017 14:00 (1h 30m)*

14:00 Review EuPRAXIA Laser Specifications (Z. Mazzotta)

14:30 Discussion (all)

15:00 Preliminary results on the modeling of an optical injector (G. Maynard)  
with an experimental laser profile

15:15 WP2-WP4 interactions (P. Nghiem)

**Presenter:** MAZZOTTA, Zeudi (Università degli Studi e INFN Milano (IT))

**Session Classification:** WP Meetings



Contribution ID: 35

Type: **not specified**

## WP4

*Thursday 23 November 2017 16:00 (2 hours)*

Guido TOCI, Preliminary laser design with Ti:Sa (20 min)

Paul MASON, Progress on technology develop. for higher PRF pump operation (15 min)

Franck FALCOZ, P60 with diode pumping (15 min)

Andy BAYRAMLIAN, Tm:YLF based architecture (20 min) Francois MATHIEU, Recent progress on XCAN (15 min)

Petra KOESTER, Preliminary design of transverse functions (15 min)

Zeudi MAZZOTTA, Transport and compression: key issues (20 min)

**Presenter:** GIZZI, Leonida Antonio (Leo) (CNR and INFN)

**Session Classification:** WP Meetings

Contribution ID: **36**

Type: **not specified**

## **WP3**

*Thursday 23 November 2017 16:00 (2 hours)*

Discussion introduction: proposed implementation schemes for 2 plasma stages (Eupraxia report MS3.2) and stability requirements (T. Audet, LPGP)

LPA Injector at 150 MeV : status & simulation updates (P. Lee/G Maynard, LPGP)

Effect of injection process on divergence and emittance (Petra Koester, INO).

LPA accelerator at 5 GeV: status, Laser parameters, Progress on plasma sources

Laser plasma coupling schemes (Jason Cole or Z Najmudin, ICL)

Proposed schemes/techniques for synchronization of laser & electron beams

Proposed schemes for electron transport between stages (A. Chancé, E Chiadroni)

**Presenter:** CROS, Brigitte (LPGP CNRS)

**Session Classification:** WP Meetings

Contribution ID: 37

Type: **not specified**

## **WP2 & WP5 + WP9**

*Thursday 23 November 2017 16:00 (2 hours)*

Alberto Marocchino (INFN-LNF-Univ. Roma): importing/exporting parameters between simulation codes (10 min)

Paolo Tomassini (CNR-INO): Last results of Rempi scheme (20 min)

Patrick Lee (CNRS-LPGP): Studies of beam loading effects in ionization injection scheme (25 min)

Xiangkun Li (CEA-IRFU): Attempts to decrease slice energy spread in quasi-linear regime (15 min)

Phu Anh Phi Nghiem (CEA-IRFU): WP2 tasks and plans, discussions (30 min)

**Presenter:** NGHIEM, Phi

**Session Classification:** WP Meetings