

# **LUPE & LUXE Workshop**

## **Report of Contributions**

Contribution ID: **1**

Type: **not specified**

# Welcome

*Monday 15 April 2024 13:30 (10 minutes)*

**Presenter:** HEINEMANN, Beate (DESY and University of Freiburg (Germany))

**Session Classification:** Session 1

Contribution ID: 2

Type: **not specified**

## SF-QED Theory Overview

*Monday 15 April 2024 13:40 (30 minutes)*

This talk should give an overview on the current status of SF-QED, highlighting in particular open questions to be clarified by experiments, applications of SF-QED and their relevant parameter space, the role of precision as well as the role of polarisation-dependent effects.

**Presenter:** BLACKBURN, Tom (University of Gothenburg)

**Session Classification:** Session 1

Contribution ID: 3

Type: **not specified**

## Discussion

*Monday 15 April 2024 14:10 (20 minutes)*

**Session Classification:** Session 1

Contribution ID: 4

Type: **not specified**

## Facilities and opportunities at Eu.XFEL

*Monday 15 April 2024 14:30 (15 minutes)*

This talk should review experimental opportunities for SF-QED experiments at the Eu.XFEL with particular regard to the experimental environment, the beam properties, their control and stability and timelines.

**Presenter:** FEURER, Thomas (Eu.XFEL)

**Session Classification:** Session 1

Contribution ID: 5

Type: **not specified**

## Plasma acceleration facilities and opportunities at DESY

*Monday 15 April 2024 14:45 (15 minutes)*

This talk should review experimental opportunities for SF-QED experiments with plasma accelerators and lasers at DESY, with particular regard to the experimental environment, the beam properties, their control and stability and timelines.

**Presenter:** LEEMANS, Wim (M (Beschleuniger))

**Session Classification:** Session 1

Contribution ID: 6

Type: **not specified**

## Discussion

*Monday 15 April 2024 15:00 (30 minutes)*

**Session Classification:** Session 1

Contribution ID: 7

Type: **not specified**

## Science of LUXE

*Monday 15 April 2024 15:30 (30 minutes)*

This talk should summarise the science goals and timeline of LUXE, with particular regard to the experimental strategy to achieve precision measurements, including e.g. the control of beam parameters, cross-calibrations of complementary systems and the data-taking plan.

**Presenter:** WING, Matthew (UCL)

**Session Classification:** Session 2



Contribution ID: 8

Type: **not specified**

## Discussion

*Monday 15 April 2024 16:00 (30 minutes)*

**Session Classification:** Session 2

Contribution ID: 9

Type: **not specified**

## Plasma Mirror experiments

*Monday 15 April 2024 16:30 (30 minutes)*

This talk should summarise the goals, status and challenges of plasma mirror experiments with particular regard to the path towards achieving precision.

**Presenter:** VINCENTI, Henri (MPA (Plasma Accelerators))

**Session Classification:** Session 2

Contribution ID: **10**

Type: **not specified**

## Discussion

*Monday 15 April 2024 17:00 (30 minutes)*

**Session Classification:** Session 2

Contribution ID: 11

Type: **not specified**

## **Final Discusssion on coherent approach / grant application(s)**

*Monday 15 April 2024 17:30 (1 hour)*

Chaired by Ties Behnke

Suggested lead questions:

- How are the LUPE and LUXE scientific goals complementary / synergistic?
- What are the challenges for high-rate precision measurements with plasma mirrors?
- What are common interests in detectors, laser and beam diagnostics?

**Session Classification:** Session 2