

# **I.FAST Workshop 2022: Beam diagnostics and dynamics in ultra-low emittance rings**

## **Report of Contributions**

Contribution ID: 1

Type: **not specified**

## Welcome

*Monday, April 25, 2022 1:00 PM (10 minutes)*

**Presenter:** MÜLLER, Anke-Susanne (KIT)

Contribution ID: 2

Type: **not specified**

## **Introduction KIT, KARA, and FLUTE**

*Monday, April 25, 2022 1:10 PM (20 minutes)*

**Presenter:** HAERER, Bastian (KIT)

Contribution ID: 3

Type: **not specified**

## Organization & information

*Monday, April 25, 2022 1:30 PM (10 minutes)*

**Presenter:** MOCHIHSHI, Akira (Laboratory for Applications of Synchrotron Radiation)

Contribution ID: 4

Type: **not specified**

## Discussion

*Monday, April 25, 2022 4:25 PM (30 minutes)*

Contribution ID: 5

Type: **not specified**

## **Session 1 summary talk**

*Monday, April 25, 2022 4:55 PM (15 minutes)*

Contribution ID: 6

Type: **not specified**

## **Discussion: Session 2**

*Tuesday, April 26, 2022 2:15 PM (30 minutes)*

Contribution ID: 7

Type: **not specified**

## Session 2 Summary Talk

*Tuesday, April 26, 2022 2:45 PM (15 minutes)*

Contribution ID: 8

Type: **not specified**

## **Discussion: Session 3**

*Wednesday, April 27, 2022 2:55 PM (30 minutes)*

Contribution ID: 9

Type: **not specified**

## Session 3 Summary Talk

*Wednesday, April 27, 2022 3:25 PM (15 minutes)*

Contribution ID: **10**

Type: **not specified**

## **Workshop group photo**

Contribution ID: **11**

Type: **not specified**

## **Discussion: Session 4**

*Thursday, April 28, 2022 2:35 PM (30 minutes)*

Contribution ID: 12

Type: **not specified**

## **Session 4 summary talk**

*Thursday, April 28, 2022 3:05 PM (15 minutes)*

Contribution ID: 13

Type: **not specified**

## **Discussion: Session 5**

*Friday, April 29, 2022 1:50 PM (30 minutes)*

Contribution ID: **14**

Type: **not specified**

## **Session 5 summary talk**

*Friday, April 29, 2022 2:20 PM (15 minutes)*

Contribution ID: 15

Type: **not specified**

## **Discussion: Session 6**

*Friday, April 29, 2022 3:45 PM (30 minutes)*

Contribution ID: **16**

Type: **not specified**

## **Session 6 summary talk**

*Friday, April 29, 2022 4:15 PM (15 minutes)*

Contribution ID: 17

Type: **not specified**

## **Discussion: Through all sessions**

*Friday, April 29, 2022 4:30 PM (30 minutes)*

Contribution ID: **18**

Type: **not specified**

## Closing remark

*Friday, April 29, 2022 5:00 PM (10 minutes)*

Contribution ID: 19

Type: **not specified**

## **Diagnostics Requirements for Ultra-Low Emittance Rings**

*Monday, April 25, 2022 1:40 PM (25 minutes)*

**Presenter:** SCHLOTT, Volker (PSI)

**Session Classification:** Overview Session 1

Contribution ID: 20

Type: **not specified**

## **Optimization of sextupole magnetic fields at the SPring-8 storage ring**

*Monday, April 25, 2022 2:05 PM (25 minutes)*

**Presenter:** SHIMOSAKI, Yoshito (KEK)

**Session Classification:** Session 1-1

Contribution ID: 21

Type: **not specified**

## **Transverse beam diagnostics at MAX IV**

*Monday, April 25, 2022 2:30 PM (25 minutes)*

**Presenter:** ANDERSSON, Ake

**Session Classification:** Session 1-2

Contribution ID: 22

Type: **not specified**

## **Transverse beam size diagnostics and some applications to storage ring operation and beam studies at the ESRF**

*Monday, April 25, 2022 3:10 PM (25 minutes)*

**Presenter:** EWALD, Friederike (ESRF)

**Session Classification:** Session 1-3

Contribution ID: 23

Type: **not specified**

## **Photon beam diagnostics for SOLEIL upgrade project**

*Monday, April 25, 2022 3:35 PM (25 minutes)*

**Presenter:** LABAT, Marie (SOLEIL)

**Session Classification:** Session 1-4

Contribution ID: 24

Type: **not specified**

## **Beam Position Monitors and Orbit Feedback for Low Emittance Rings**

*Monday, April 25, 2022 4:00 PM (25 minutes)*

**Presenter:** HUBERT, Nicolas (Synchrotron SOLEIL)

**Session Classification:** Session 1-5

Contribution ID: 25

Type: **not specified**

# Longitudinal beam dynamics in ultra-low emittance rings

*Tuesday, April 26, 2022 1:00 PM (25 minutes)*

**Presenter:** CULLINAN, Francis

**Session Classification:** Session 2-1

Contribution ID: 26

Type: **not specified**

## **Turn-by-turn and bunch-by-bunch diagnostic developments at KIT**

*Tuesday, April 26, 2022 1:25 PM (25 minutes)*

**Presenter:** STEINMANN, Johannes (KIT / IBPT)

**Session Classification:** Session 2-2

Contribution ID: 27

Type: **not specified**

## **Electron-bunch dynamics during the micro-bunching instability: third-generation & low-emittance configuration**

*Tuesday, April 26, 2022 1:50 PM (25 minutes)*

**Presenter:** EVAIN, Clement (Lille University)

**Session Classification:** Session 2-3

Contribution ID: 28

Type: **not specified**

## **Harmonic cavity studies for the SOLEIL Upgrade**

*Wednesday, April 27, 2022 1:00 PM (25 minutes)*

**Presenter:** GAMELIN, Alexis (SOLEIL)

**Session Classification:** Session 3-1

Contribution ID: 29

Type: **not specified**

## **Implementation and Collective Effects during Negative Momentum Compaction Operation at KARA**

*Wednesday, April 27, 2022 1:25 PM (25 minutes)*

**Presenter:** SCHREIBER, Patrick (KIT)

**Session Classification:** Session 3-2

Contribution ID: 30

Type: **not specified**

## **Diagnosing collective effects in the MAX IV storage rings**

*Wednesday, April 27, 2022 2:05 PM (25 minutes)*

**Presenter:** BROSI, Miriam (MAX IV)

**Session Classification:** Session 3-3

Contribution ID: 31

Type: **not specified**

## **Overview of the Longitudinal and Transverse Bunch by Bunch Feedback at DAFNE**

*Wednesday, April 27, 2022 2:30 PM (25 minutes)*

**Presenter:** FRANZINI, Giovanni (INFN)

**Session Classification:** Session 3-4

Contribution ID: 32

Type: **not specified**

## **Beam dynamics on beam injection**

*Thursday, April 28, 2022 1:00 PM (25 minutes)*

**Presenter:** AIBA, Masamitsu (PSI)

**Session Classification:** Session 4-1

Contribution ID: 33

Type: **not specified**

## **Diagnostics and beam dynamics in the Bessy II Booster Synchrotron**

*Thursday, April 28, 2022 1:25 PM (25 minutes)*

**Presenter:** MCATEER, Meghan (HZB)

**Session Classification:** Session 4-2

Contribution ID: 34

Type: **not specified**

## **An improvised beam diagnostics system for the cSTART storage ring**

*Thursday, April 28, 2022 2:10 PM (25 minutes)*

**Presenter:** KHECHEN, Dima (KIT)

**Session Classification:** Session 4-3

Contribution ID: 35

Type: **not specified**

## **Beam stability at the MAX IV storage rings**

*Friday, April 29, 2022 1:00 PM (25 minutes)*

**Presenter:** BREUNLIN, Jonas (MAX IV)

**Session Classification:** Session 5-1

Contribution ID: 36

Type: **not specified**

## **Investigation of characteristics and sources of beam orbit instabilities in modern light sources**

*Friday, April 29, 2022 1:25 PM (25 minutes)*

**Presenters:** KONGTAWONG, Sukho (Stony Brook University); SHAFTAN, Timur (BNL)

**Session Classification:** Session 5-2

Contribution ID: 37

Type: **not specified**

## **Virtual diagnostics for high brightness particle accelerators**

*Friday, April 29, 2022 2:55 PM (25 minutes)*

**Presenter:** EMMA, Claudio

**Session Classification:** Session 6-1

Contribution ID: **38**

Type: **not specified**

## **Machine learning to control and predict beam properties**

*Friday, April 29, 2022 3:20 PM (25 minutes)*

**Presenter:** SANTAMARIA GARCIA, Andrea (KIT)

**Session Classification:** Session 6-2