

# **I.FAST Workshop 2024 on Bunch-by-Bunch Feedback Systems and Related Beam Dynamics**



## **Report of Contributions**

Contribution ID: 19

Type: **Oral presentation**

# **The Impact of the BEPCII Transverse Feedback system on Horizontal Synchro-Betatron resonances due to Beam-Beam Interaction**

*Monday, March 4, 2024 1:50 PM (25 minutes)*

Remote session

## **Session categories**

**Presenter:** YIN, Di (IHEP)

**Session Classification:** Beam instrumentation and high power systems

Contribution ID: 20

Type: **Oral presentation**

# **Feedback system for Hybrid Filling with Large Bunch Current Contrast**

*Monday, March 4, 2024 9:30 AM (25 minutes)*

## **Session categories**

**Presenter:** NAKAMURA, Takeshi (KEK)

**Session Classification:** Beam instrumentation and high power systems

Contribution ID: 22

Type: **Oral presentation**

## **Beam instrumentation and high power systems: Short discussion**

*Monday, March 4, 2024 2:15 PM (10 minutes)*

### **Session categories**

**Session Classification:** Beam instrumentation and high power systems

Contribution ID: 24

Type: **Oral presentation**

## **Bunch-by-bunch feedback systems in KARA**

*Monday, March 4, 2024 10:20 AM (25 minutes)*

### **Session categories**

**Presenter:** BLOMLEY, Edmund (KIT)

**Session Classification:** Beam instrumentation and high power systems

Contribution ID: 25

Type: **Oral presentation**

## **Bunch-by-bunch feedback in the BessyII Booster**

*Monday, March 4, 2024 11:05 AM (25 minutes)*

### **Session categories**

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

**Session Classification:** Beam instrumentation and high power systems

Contribution ID: 27

Type: **Oral presentation**

# Longitudinal Feedback Using a Low-pass Differentiator

*Monday, March 4, 2024 2:25 PM (25 minutes)*

## Session categories

**Presenter:** TEYTELMAN, Dmitry (Dimtel. Inc.)

**Session Classification:** Hardware for fast signal processing

Contribution ID: 28

Type: **Oral presentation**

## **Bunch-by-Bunch observation, feedback and manipulation using the DLS-MBF in BESSY**

*Monday, March 4, 2024 2:50 PM (25 minutes)*

### **Session categories**

**Presenter:** REHM, Günther (HZB / DLS)

**Session Classification:** Hardware for fast signal processing



Contribution ID: 29

Type: **Oral presentation**

## **RFSoc-based digital signal processing for SLS2.0 multi-bunch feedback system**

*Monday, March 4, 2024 3:15 PM (25 minutes)*

### **Session categories**

**Presenter:** BAETA, Pedro (PSI)

**Session Classification:** Hardware for fast signal processing

Contribution ID: **30**

Type: **not specified**

## **Hardware for fast signal processing: Short discussion**

*Monday, March 4, 2024 4:05 PM (10 minutes)*

### **Session categories**

**Session Classification:** Hardware for fast signal processing

Contribution ID: **31**

Type: **Oral presentation**

## **Transverse collective effects simulation with bunch-by-bunch feedback**

*Monday, March 4, 2024 5:00 PM (25 minutes)*

### **Session categories**

**Presenter:** GUBAIDULIN, Vadim (SOLEIL)

**Session Classification:** Related beam dynamics

Contribution ID: 32

Type: **Oral presentation**

## **Modelling of the longitudinal bunch by bunch feedback including harmonic cavities**

*Monday, March 4, 2024 5:25 PM (25 minutes)*

### **Session categories**

**Presenter:** DEHLER, Micha (PSI)

**Session Classification:** Related beam dynamics

Contribution ID: 33

Type: **Oral presentation**

## **Bunch Pitch/Yaw Monitor Development and Proposal of Pitch/Yaw Feedback**

*Tuesday, March 5, 2024 9:50 AM (25 minutes)*

### **Session categories**

**Presenter:** NAKAMURA, Takeshi (KEK)

**Session Classification:** Applications and new ideas

Contribution ID: 34

Type: **not specified**

## Related beam dynamics: Short discussion

*Monday, March 4, 2024 6:15 PM (10 minutes)*

### Session categories

**Session Classification:** Related beam dynamics

Contribution ID: **38**

Type: **not specified**

## **Applications and new ideas: Short discussion**

*Tuesday, March 5, 2024 10:15 AM (10 minutes)*

### **Session categories**

**Session Classification:** Applications and new ideas

Contribution ID: 40

Type: **Oral presentation**

## **Beam emittance control and investigations at Diamond Light Source**

*Tuesday, March 5, 2024 9:00 AM (25 minutes)*

**Presenter:** MORGAN, Alun (DLS)

**Session Classification:** Applications and new ideas



Contribution ID: 41

Type: **Oral presentation**

## **Elettra Multi-Bunch Feedback systems and applications**

*Tuesday, March 5, 2024 9:25 AM (25 minutes)*

### **Session categories**

**Presenter:** LONZA, Marco (ELETTRA)

**Session Classification:** Applications and new ideas

Contribution ID: 42

Type: **Oral presentation**

## **SOLEIL transverse bunch-by-bunch feedback system**

*Monday, March 4, 2024 9:55 AM (25 minutes)*

### **Session categories**

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

**Session Classification:** Beam instrumentation and high power systems

Contribution ID: 43

Type: **Oral presentation**

## **Transverse feedback in Large Hadron Collider - a Swiss tool for LHC**

*Monday, March 4, 2024 11:30 AM (25 minutes)*

### **Session categories**

**Presenter:** VALUCH, Daniel (CERN)

**Session Classification:** Beam instrumentation and high power systems

Contribution ID: 44

Type: **Oral presentation**

## **Multi-bunch longitudinal beam-dynamics code for the DAFNE rings**

*Monday, March 4, 2024 4:35 PM (25 minutes)*

Remote session

### **Session categories**

**Presenter:** QUARTULLO, Danilo (INFN-LNF)

**Session Classification:** Related beam dynamics

Contribution ID: 47

Type: **Oral presentation**

# **Bunch-by-bunch feedback system for PETRA IV**

*Monday, March 4, 2024 3:40 PM (25 minutes)*

## **Session categories**

**Presenter:** PFEIFFER, Sven (DESY)

**Session Classification:** Hardware for fast signal processing

Contribution ID: 48

Type: **Oral presentation**

## **Modelling of RF feedbacks for tracking simulations in hadron synchrotrons (tentative)**

*Monday, March 4, 2024 5:50 PM (25 minutes)*

### **Session categories**

**Presenter:** KARLSEN-BAECK, Birk Emil (CERN)

**Session Classification:** Related beam dynamics

Contribution ID: 49

Type: **Oral presentation**

## **Bunch-by-bunch feedback systems for SuperKEKB collider**

*Monday, March 4, 2024 1:25 PM (25 minutes)*

Remote session

### **Session categories**

**Presenter:** TOBIYAMA, Makoto (KEK)

**Session Classification:** Beam instrumentation and high power systems