

The 6th International School on Beam Dynamics and Accelerator Technology (ISBA23)



Report of Contributions

Contribution ID: 1

Type: **not specified**

Introduction of Accelerator Science

Thursday, 3 August 2023 09:00 (1h 30m)

Presenter: KURIKI, Masao (Hiroshima University)

Contribution ID: 2

Type: **not specified**

Foundation of Beam Dynamics 1

Thursday, 3 August 2023 10:45 (1h 30m)

Presenter: Prof. KIM, Yujong (KAERI)

Contribution ID: 3

Type: **not specified**

Magnet Theory

Thursday, 3 August 2023 13:30 (1h 30m)

Presenter: Dr PARC, Y. (PAL & POSTECH, Korea)

Contribution ID: 4

Type: **not specified**

Foundation of Beam Dynamics 2

Thursday, 3 August 2023 15:10 (1h 30m)

Presenter: Prof. KIM, Yujong (KAERI)

Contribution ID: 5

Type: **not specified**

Particle Generation (Beam Source)

Thursday, 3 August 2023 16:50 (1h 30m)

Presenter: Dr LIPTAK, Zachary (Hiroshima University)

Contribution ID: 6

Type: **not specified**

Reception

Contribution ID: 7

Type: **not specified**

Greeting and Communication

Thursday, 3 August 2023 20:00 (1h 30m)

Contribution ID: 8

Type: **not specified**

Electron Injector and Linear Accelerator

Friday, 4 August 2023 15:10 (1h 30m)

Presenter: KURIKI, Masao (Hiroshima University)

Contribution ID: 9

Type: **not specified**

Foundation of Beam Dynamics 3

Friday, 4 August 2023 10:45 (1h 30m)

Presenter: Prof. KIM, Yujong (KAERI)

Contribution ID: **10**

Type: **not specified**

Accelerating RF Cavity

Friday, 4 August 2023 09:00 (1h 30m)

Presenter: Dr KIM, Sang-hoon (FRIB)

Contribution ID: 11

Type: **not specified**

Normal Conducting Accelerator

Presenter: Prof. GAO, Jie (IHEP)

Contribution ID: 12

Type: **not specified**

Hands on Training ASTRA Code 1

Friday, 4 August 2023 16:50 (1h 30m)

Presenter: Dr LIPTAK, Zachary (Hiroshima University)

Contribution ID: 13

Type: **not specified**

Superconducting Accelerator

Friday, 4 August 2023 13:30 (1h 30m)

Presenter: Dr KIM , Sang-hoon (FRIB)

Contribution ID: 14

Type: **not specified**

Hands on Training with ELELGANT Code

Friday, 4 August 2023 16:50 (1h 30m)

Presenter: Prof. KIM, Yujong (KAERI)

Contribution ID: 15

Type: **not specified**

Circular Accelerator and Synchrotron

Saturday, 5 August 2023 09:00 (1h 30m)

Presenter: Prof. YOKOYA, Kaoru (KEK)

Contribution ID: 16

Type: **not specified**

3rd and 3.5th Generation Synchrotron Light Source

Presenter: Prof. LAU, Wai-Keung (NSRRC)

Contribution ID: 17

Type: **not specified**

Coupled Bunch Mode Beam Instabilities and Damping Ring Systems for Synchrotron Light Sources

Saturday, 5 August 2023 10:45 (1h 30m)

Presenter: Prof. KIM, Yujong (KAERI)

Contribution ID: **18**

Type: **not specified**

Advanced Beam Dynamics in Circular Accelerator

Saturday, 5 August 2023 15:10 (1h 30m)

Presenter: Prof. GAO, Jie (IHEP)

Contribution ID: **19**

Type: **not specified**

Hands on Training ASTRA Code 2

Saturday, 5 August 2023 16:50 (1h 30m)

Presenter: Dr LIPTAK, Zachary (Hiroshima University)

Contribution ID: 20

Type: **not specified**

Hans on Training ELEGANT Code

Saturday, 5 August 2023 16:50 (1h 30m)

Presenter: Prof. KIM, Yujong (KAERI)

Contribution ID: 21

Type: **not specified**

Industrial Accelerators and Applications

Saturday, 5 August 2023 13:30 (1h 30m)

Presenter: KURIKI, Masao (Hiroshima University)

Contribution ID: 22

Type: **not specified**

RF System

Sunday, 6 August 2023 09:00 (1h 30m)

Presenter: Dr RIMJAEM, Sakhorn (Chiang Mai University)

Contribution ID: 23

Type: **not specified**

Advanced Beam Dynamics in XFEL Driving Linac

Sunday, 6 August 2023 10:45 (1h 30m)

Presenter: Prof. KIM, Yujong (KAERI)

Contribution ID: 24

Type: **not specified**

Beam Diagnostics for Storage Ring and XFEL

Sunday, 6 August 2023 13:30 (1h 30m)

Presenter: Dr KIM, C. (PAL, Korea)

Contribution ID: 25

Type: **not specified**

Analytical Treatment of Linear Accelerator

Sunday, 6 August 2023 15:10 (1h 30m)

Presenter: Prof. GAO, Jie (IHEP)

Contribution ID: 26

Type: **not specified**

Hands on Training ASTRA Code 3

Sunday, 6 August 2023 16:50 (1h 30m)

Presenters: Dr RIMJAEM, Sakhorn (Chiang Mai University); Dr LIPTAK, Zachary (Hiroshima University)

Contribution ID: 27

Type: **not specified**

Hands on Training ELEGANT Code 3

Sunday, 6 August 2023 16:50 (1h 30m)

Presenter: Prof. KIM, Yujong (KAERI)

Contribution ID: 28

Type: **not specified**

Student Session

Contribution ID: 29

Type: **not specified**

Foundation of Colliders

Contribution ID: **30**

Type: **not specified**

Foundation of XFEL

Contribution ID: **31**

Type: **not specified**

Spallation Neutron Source

Contribution ID: 32

Type: **not specified**

Protn Linac Based BNCT Cancer Therapy

Tuesday, 8 August 2023 13:30 (1 hour)

Presenter: Dr BAE, Y. (DAWON MEDAX, Korea)

Contribution ID: 33

Type: **not specified**

Heavy Ion (Carbon) Canther Therapy

Tuesday, 8 August 2023 14:35 (1 hour)

Presenter: KURIKI, Masao (Hiroshima University)

Contribution ID: **34**

Type: **not specified**

Hands on Training ASTRA code 4

Tuesday, 8 August 2023 16:50 (1h 30m)

Presenters: Dr RIMJAEM, Sakhorn (Chiang Mai University); Dr LIPTAK, Zachary (Hiroshima University)

Contribution ID: 35

Type: **not specified**

Hands on Training ELEGANT code 4

Tuesday, 8 August 2023 16:50 (1h 30m)

Presenter: Prof. KIM, Yujong (KAERI)

Contribution ID: 36

Type: **not specified**

Electron Linac Based Cancer Therapy

Tuesday, 8 August 2023 15:40 (1 hour)

Presenter: Dr LIM , H. (DIRAMS, Korea)

Contribution ID: 37

Type: **not specified**

Foundation of Colliders

Tuesday, 8 August 2023 09:00 (1h 30m)

Presenter: Prof. YOKOYA, Kaoru (KEK)

Contribution ID: **38**

Type: **not specified**

Proton and Heavy Ion Accelerators

Tuesday, 8 August 2023 10:45 (1h 30m)

Presenter: Dr JEON , D. (RAON/IBS, Korea)

Contribution ID: 39

Type: **not specified**

Foundation of AI

Wednesday, 9 August 2023 09:00 (1h 30m)

Presenter: Dr LEE, G. (KAERI, Korea)

Contribution ID: 40

Type: **not specified**

De Novo Drug Design with AI

Wednesday, 9 August 2023 15:10 (1h 30m)

Presenter: Dr SHIN, H. (KIT, Korea)

Contribution ID: 41

Type: **not specified**

ChatGPT for Scientists

Wednesday, 9 August 2023 10:45 (1h 30m)

Presenter: Dr SHIN, H. (KIT, Korea)

Contribution ID: 42

Type: **not specified**

Machine Learning and AI Based Beam Diagnostics

Wednesday, 9 August 2023 13:30 (1h 30m)

Presenter: Dr MAESAKA, Hirokazu (Spring-8/Riken, Japan)

Contribution ID: 43

Type: **not specified**

Hands on Training ASTRA Code 5

Wednesday, 9 August 2023 20:00 (1h 30m)

Presenters: Dr RIMJAEM, Sakhorn (Chiang Mai University); Dr LIPTAK, Zachary (Hiroshima University)

Contribution ID: 44

Type: **not specified**

Hands on Training ELEGANT Code 5

Wednesday, 9 August 2023 20:00 (1h 30m)

Presenter: Prof. KIM, Yujong (KAERI)

Contribution ID: 45

Type: **not specified**

EPICS Contron System and DAQ for AI

Wednesday, 9 August 2023 16:50 (1h 30m)

Presenter: Dr KIM, K. (SLAC, USA)

Contribution ID: 46

Type: **not specified**

Worldwide 4GSR Projects and New Trend Toward Superfacility

Thursday, 10 August 2023 10:45 (1h 30m)

Presenter: Prof. KIM, Yujong (KAERI)

Contribution ID: 47

Type: **not specified**

3-3.5th Generation Synchrotron Light Sources

Thursday, 10 August 2023 09:00 (1h 30m)

Presenter: Prof. LAU, Wai-Keung (NSRRC)

Contribution ID: 48

Type: **not specified**

Generation of Attosecond XFEL Pulses

Thursday, 10 August 2023 13:30 (40 minutes)

Presenter: Dr SHIN, C. (PAL & POSTECH, Korea)

Contribution ID: 49

Type: **not specified**

Self-Seeding for XFEL

Thursday, 10 August 2023 14:20 (40 minutes)

Presenter: Dr PARC, Y. (PAL & POSTECH, Korea)

Contribution ID: 50

Type: **not specified**

Hands on Training ASTRA Code

Thursday, 10 August 2023 16:50 (1h 30m)

Presenters: Dr DESHPANDE, Abhay (SAMEER); Dr LIPTAK, Zachary (Hiroshima University)

Contribution ID: 51

Type: **not specified**

Hans on Training ELEGANT Code

Thursday, 10 August 2023 16:50 (1h 30m)

Presenter: Prof. KIM, Yujong (KAERI)

Contribution ID: 52

Type: **not specified**

Advanced Beam Dynamics in 4th Generation Synchrotron Light Source Projects

Thursday, 10 August 2023 15:10 (1h 30m)

Presenters: Dr CHAE, Y. (DESY, Germany); Prof. KIM, Yujong (KAERI)

Contribution ID: 53

Type: **not specified**

Preparation for the Hands on Training Summary

Saturday, 12 August 2023 09:00 (3h 15m)

Presenters: Dr DESHPANDE, Abhay (SAMEER); Prof. KIM, Yujong (KAERI); Dr LIPTAK, Zachary (Hiroshima University)

Contribution ID: 54

Type: **not specified**

Summary Session of the Hands on Training 1

Contribution ID: 55

Type: **not specified**

Summary Session of the Hands-on Training 2

Contribution ID: 56

Type: **not specified**

Awards, Distribution of School Certificationos, and Closing

Saturday, 12 August 2023 16:00 (1 hour)

Contribution ID: 57

Type: **not specified**

School Opening and Welcom Address

Thursday, 3 August 2023 08:45 (15 minutes)

Presenter: Prof. NAMKUNG, W. (Postech)

Contribution ID: 58

Type: **not specified**

Beam Diagnostics for Storage Ring and XFEL

Contribution ID: 59

Type: **not specified**

Accelerator R&D and education in Korea

Saturday, 12 August 2023 09:20 (20 minutes)

Presenter: Prof. KIM, Yujong (KAERI)

Session Classification: Asian Forum for Accelerator Research Development and Education

Contribution ID: **60**

Type: **not specified**

Accelerator R&D and education in China

Saturday, 12 August 2023 10:00 (20 minutes)

Presenter: Prof. GAO, Jie (IHEP)

Session Classification: Asian Forum for Accelerator Research Development and Education

Contribution ID: **61**

Type: **not specified**

Accelerator R&D in Taiwan

Saturday, 12 August 2023 09:40 (20 minutes)

Presenter: Prof. LAU, Wai-Keung (NSRRC)

Session Classification: Asian Forum for Accelerator Research Development and Education

Contribution ID: 62

Type: **not specified**

Accelerator R&D and education in Japan

Saturday, 12 August 2023 10:35 (20 minutes)

Presenter: KURIKI, Masao (Hiroshima University)

Session Classification: Asian Forum for Accelerator Research Development and Education

Contribution ID: 63

Type: **not specified**

Accelerator R&D and Education in India

Saturday, 12 August 2023 11:15 (20 minutes)

Presenter: Dr DESHPANDE, Abhay (SAMEER)

Session Classification: Asian Forum for Accelerator Research Development and Education

Contribution ID: 64

Type: **not specified**

Accelerator R&D and Education in Thailand

Saturday, 12 August 2023 10:55 (20 minutes)

Presenter: Dr RIMJAEM, Sakhorn (Chiang Mai University)

Session Classification: Asian Forum for Accelerator Research Development and Education

Contribution ID: 65

Type: **not specified**

Introduction to the forum for Accelerator R&D and Education

Saturday, 12 August 2023 09:00 (20 minutes)

Presenter: Dr LIPTAK, Zachary (Hiroshima University)

Session Classification: Asian Forum for Accelerator Research Development and Education

Contribution ID: 66

Type: **not specified**

A Proposal for collaboration on Accelerator R&D and Education

Saturday, 12 August 2023 11:35 (20 minutes)

Presenter: Dr LIPTAK, Zachary (Hiroshima University)

Session Classification: Asian Forum for Accelerator Research Development and Education

Contribution ID: 67

Type: **not specified**

Discussion

Saturday, 12 August 2023 11:55 (20 minutes)

Session Classification: Asian Forum for Accelerator Research Development and Education

Contribution ID: 68

Type: **not specified**

Accelerator-based THz Time Domain Spectroscopy Using Coherent Transition Radiation from Short Electron Bunches

Friday, 4 August 2023 20:00 (15 minutes)

Accelerator-based THz Time Domain Spectroscopy Using Coherent Transition Radiation from Short Electron Bunches

Presenter: Ms PAKLUEA, Siriwan (Chiang Mai University)

Session Classification: Student Session

Contribution ID: 69

Type: **not specified**

Injector optimization of RFBT experiment at KEK-STF

Friday, 4 August 2023 20:15 (15 minutes)

Presenter: Mr MUKHERJEE, Sayantan (Hiroshima University)

Session Classification: Student Session

Contribution ID: 70

Type: **not specified**

Beam loading compensation on the booster linac

Saturday, 5 August 2023 21:30 (15 minutes)

Beam loading compensation on the booster linac

Presenter: Mr KUROGUCHI, Shunpei (Hiroshima University)

Session Classification: Student Session

Contribution ID: 71

Type: **not specified**

About my research Muography

Friday, 4 August 2023 20:30 (15 minutes)

Presenter: Mr SHIRAIWA, Yushi (Shinshu U.)

Session Classification: Student Session

Contribution ID: 72

Type: **not specified**

Design and development of deceleration lens system for oxygen ion beam extracted from Radio Frequency (RF) Ion Source

Friday, 4 August 2023 20:45 (15 minutes)

Design and development of deceleration lens system for oxygen ion beam extracted from Radio
Frequency (RF) Ion Source

Presenter: Mr SONAWANE, Amol (Savitribai Phule Pune University)

Session Classification: Student Session

Contribution ID: 73

Type: **not specified**

Characterization of beam coupling in circular accelerators

Characterization of beam coupling in circular accelerators

Presenter: Mr KIM, Junha (UNIST)

Session Classification: Student Session

Contribution ID: 74

Type: **not specified**

Q&A in Hands on Training with ASTRA Code

Thursday, 10 August 2023 20:00 (1h 30m)

Presenters: Dr RIMJAEM, Sakhorn (Chiang Mai University); Dr LIPTAK, Zachary (Hiroshima University)

Contribution ID: 75

Type: **not specified**

Q&A in Hands on Training with ELEGANT Code

Thursday, 10 August 2023 20:00 (1h 30m)

Presenter: Prof. KIM, Yujong (KAERI)

Contribution ID: 76

Type: **not specified**

Progress on Electron Beam Optimization for FLASH Radiotherapy Experiment at Chiang Mai University

Saturday, 5 August 2023 20:00 (15 minutes)

Progress on Electron Beam Optimization for FLASH Radiotherapy Experiment at Chiang Mai University

Presenters: Ms KONGMALI, Kanlayaporn (Chiang Mai University); KURIKI

Session Classification: Student Session

Contribution ID: 77

Type: **not specified**

Experimental study of phase space rotation for high luminosity beam generation at STF

Saturday, 5 August 2023 20:15 (15 minutes)

Experimental study of phase space rotation for high luminosity beam generation at STF

Presenter: Mr DATE, Keisuke (Hiroshima University)

Session Classification: Student Session

Contribution ID: 78

Type: **not specified**

Enhanced Positron Acceleration Driven by Femtosecond Laser Pulses Irradiating Structured Targets

Saturday, 5 August 2023 20:30 (15 minutes)

Enhanced Positron Acceleration Driven by Femtosecond Laser Pulses Irradiating Structured Targets

Presenter: Mr CHINTALWAD, Sachin (IIT Hyderabad)

Session Classification: Student Session

Contribution ID: 79

Type: **not specified**

Optimization of surface muon beamline at the J-PARC muon facility

Sunday, 6 August 2023 20:00 (15 minutes)

Optimization of surface muon beamline at the J-PARC muon facility

Presenter: Ms JAIKAEW, Phanthip (RIKEN Nishina Center)

Session Classification: Student Session

Contribution ID: **80**

Type: **not specified**

Reinforcement Learning for Free Electron Laser Online Optimization

Saturday, 5 August 2023 20:45 (15 minutes)

Reinforcement Learning for Free Electron Laser Online Optimization

Presenter: Mr WU, Jiacheng (Shanghai Advanced Research Institute)

Session Classification: Student Session

Contribution ID: **81**

Type: **not specified**

Status of UNIST-EBIT and future research plan

Saturday, 5 August 2023 21:00 (15 minutes)

Presenter: Mr HAN, Je Hwan (UNIST)

Session Classification: Student Session

Contribution ID: 82

Type: **not specified**

Theoretical Approach and Nonlinear Optimization for Transverse Resonance Island Buckets Operation in Storage Ring

Sunday, 6 August 2023 20:15 (15 minutes)

Theoretical Approach and Nonlinear Optimization for Transverse Resonance Island Buckets Operation in Storage Ring

Presenter: Mr NAM, Ki Moon (Postech)

Session Classification: Student Session

Contribution ID: 83

Type: **not specified**

Electron Linear accelerator system for MIR free-electron Laser at Chiang Mai University

Saturday, 5 August 2023 21:15 (15 minutes)

Presenter: Mr TECHAKAEW, Kittipong (Chiang Mai University)

Session Classification: Student Session

Contribution ID: 84

Type: **not specified**

Feasibility study of the ultrahigh precision extraction of a single nitrogen ion from a two-component Coulomb crystal

Sunday, 6 August 2023 20:30 (15 minutes)

Feasibility study of the ultrahigh precision extraction of a single nitrogen ion from a two-component Coulomb crystal

Presenter: Mr MUROO, Kento (Hiroshima University)

Session Classification: Student Session

Contribution ID: 85

Type: **not specified**

Collimation and energy enhancement in laser driven MeV protons.

Sunday, 6 August 2023 20:45 (15 minutes)

Collimation and energy enhancement in laser driven MeV protons.

Presenter: Mr MAKUR, Kousik (IIT Hyderabad)

Session Classification: Student Session

Contribution ID: 86

Type: **not specified**

ERL for Generating Fully Coherent EUV and X-ray Radiation

Sunday, 6 August 2023 21:00 (15 minutes)

ERL for Generating Fully Coherent EUV and X-ray Radiation

Presenter: Mr LIU, Junhao (Shanghai Institute of Applied Physics)

Session Classification: Student Session

Contribution ID: 87

Type: **not specified**

Commissioning of the UNIST-EBIT: X-ray Resonant Spectroscopy of the Highly Charged Ions at PAL-XFEL

Sunday, 6 August 2023 21:15 (15 minutes)

Presenter: Mr PARK, SungNam (UNIST)

Session Classification: Student Session

Contribution ID: **88**

Type: **not specified**

Development of MIR-FEL Oscillator at Chiang Mai University

Tuesday, 8 August 2023 20:00 (15 minutes)

Presenter: Mr SUKARA, Supasin (Chiang Mai University)

Session Classification: Student Session

Contribution ID: 89

Type: **not specified**

Determining the Operational Conditions of TRIBs in PLS-II

Tuesday, 8 August 2023 20:15 (15 minutes)

Determining the Operational Conditions of TRIBs in PLS-II

Presenter: Mr PARK, Youngmin (POSTECH)

Session Classification: Student Session

Contribution ID: 90

Type: **not specified**

Study of Beam Loading Current in ILC Positron Source Capture LINAC

Tuesday, 8 August 2023 20:30 (15 minutes)

Presenter: Mr TAJINO, Hiroki (Hirohima U.)

Session Classification: Student Session

Contribution ID: 91

Type: **not specified**

Evaluation of the adjustable phase type elliptically polarized undulator for the future Taiwan Photon Source

Tuesday, 8 August 2023 20:45 (15 minutes)

Evaluation of the adjustable phase type elliptically polarized undulator for the future Taiwan Photon Source

Presenter: Mr LUO, Hao-Wen (NSRRC)

Session Classification: Student Session

Contribution ID: 92

Type: **not specified**

Injector system for wastewater purification and RI production

Tuesday, 8 August 2023 21:00 (15 minutes)

Injector system for wastewater purification and RI production

Presenter: Ms KAVAR, Anjali B hagwan (Tohoku University)

Session Classification: Student Session

Contribution ID: 93

Type: **not specified**

Simulation study of THz-driven electron acceleration used Plasma dipole oscillation (PDO)

Tuesday, 8 August 2023 21:15 (15 minutes)

Simulation study of THz-driven electron acceleration used Plasma dipole oscillation (PDO)

Presenter: Mr LEE, Jaeho (UNIST)

Session Classification: Student Session

Contribution ID: 94

Type: **not specified**

Measurements of synchronous tune under extreme circumstances

Friday, 4 August 2023 21:00 (15 minutes)

Presenter: Mr KIM, GeunWoo (Korea University)

Session Classification: Student Session