

ICABU2023 Scientific Program

Day1

TIME	Convener	Nov.8(Wednesday)
09:00 ~ 13:00		Reception & Registration
13:00 ~ 13:20	Dr. Jae Hong Kim (IRIS/IBS)	Welcome Address & Congratulatory Remarks Lee Seok-bong (Daejeon City) , Won Namkung (Postech)
13:20 ~ 13:30		Photo Taking & Break
13:30 ~ 14:00	Dr. Hyeok Jung Kwon (KOMAC/KAERI)	Dr. Ting Xu (Michigan State University) The Facility for Rare Isotope Beams: Technologies and First experience of Beam operation
14:00 ~ 14:30		Dr. Jitae Park (Technical University Munich) Neutron beam as an experimental probe for studying spin dynamics in high temperature superconductors
14:30 ~ 14:50		Break
14:50 ~ 15:20	Dr. Dong-O Jeon (IRIS/IBS)	Dr. Donato Passarelli (Fermi National Laboratory) Status Update of SRF Cavities and Cryomodule Development for the PIP-II Linac at Fermilab
15:20 ~ 15:50		Dr. Kai Masuda (National Institutes for Quantum Science and Technology) Present Status of Linear IFMIF Prototype Accelerator (LIPAc) and Future Plans
15:50 ~ 16:10		Break
16:10 ~ 16:40	Dr. Changbum Kim (PAL/POSTECH)	Dr. Kyung Su Kim (Seoul National University Hospital) Current status of SNUH Heavy Ion Treatment Gijang Center
16:40 ~ 17:10		Dr. Yeonseil Chung (Institute for Basic Science) Status of the RAON heavy ion accelerator
17:10 ~ 17:40		Dr. Hyeok jung Kwon (Korea Atomic Energy Research Institute) Operation Status of KOMAC Linac

Day2 * For WG(Working Group) and KOPIA Session, Please check the timetable provided separately below

TIME	Convener	Nov.9(Thursday)		
09:00 ~ 12:00		WG1	WG3	KOPIA
12:00 ~ 13:30		Lunch		
13:30 ~ 16:30		WG2	WG4	KOPIA
16:30 ~ 18:00	Dr. Moses Chung (UNIST)	Poster Session		
18:00 ~ 21:00	Dr. Jae Hong Kim (IRIS/IBS)	Banquet		

Day3

TIME	Convener	Nov.10(Friday)
09:00 ~ 09:30	Dr. Seunghwan Shin (KUS)	Dr. Timur Shaftan (Brookhaven National Laboratory) Recent trends and developments in the field of accelerator physics and engineering for synchrotron light sources
09:30 ~ 10:00		Dr. Lin Lui (Brazilian Synchrotron Light Laboratory) SIRIUS, a 4th generation synchrotron light source in Brazil
10:00 ~ 10:10		Break
10:10 ~ 10:40	Dr. Moses Chung (UNIST)	Dr. Younguk Sohn (KPS/KBSI) Progress of 4th Generation Korea Photon Source
10:50 ~ 11:10		Dr. Changbum Kim (Pohang Accelerator Laboratory) Status of PLS-II and PAL-XFEL
11:10 ~ 11:20		Break
11:20 ~ 11:30	Dr. Ji-ho Jang (IRIS/IBS)	Dr. Han Sung Kim (KOMAC/KAERI) WG1 Summary
11:30 ~ 11:40		Dr. Seong Hee Park (Korea Univ.) WG2 Summary
11:40 ~ 11:50		Dr. Deok-Yong Cho (JBNU) WG3 Summary
11:50 ~ 12:00		Dr. Hyeongmin Jin (SNUH) WG4 Summary
12:00 ~ 12:10		Closing Remarks
12:10 ~ 13:00		Lunch
13:00 ~ 18:00	Dr. Jae Hong Kim (IRIS/IBS)	Facility Tour(RAON)

| WG1 Program(Day2, Auditorium) - Accelerator Systems

TIME(Morning)	Convener	Nov.9 (Thursday)
09:00 ~ 09:20	Dr. Han Sung Kim (KOMAC/KAERI)	Dr. Youngkwon KIM (IRIS/IBS) Performance test of SCL3 cryomodules for RAON
09:20 ~ 09:40		Dr. Jeongil Heo (IRIS/IBS) Initial beam conditioning of 14.5 GHz ECR ion source for RAON
09:40 ~ 10:00	Dr. In Seok Hong (IRIS/IBS)	Dr. Yeong heum YEON (IRIS/IBS) Performance Evaluation of a 70 MeV H- Cyclotron as a Proton Driver for an ISOL System
10:00 ~ 10:20		Dr. Donghwan Kim (KOMAC/KAERI) Machine learning-based anomaly detection in drift tube quadrupole operation for the KOMAC linac
10:20 ~ 10:40		Break
10:40 ~ 11:00	Dr. Han Sung Kim (KOMAC/KAERI)	Dr. Chang-Ki Min (PAL/POSTECH) PAL-XFEL upgrade plan
11:00 ~ 11:20		Dr. Alexei Sytov (INFN, KISTI) E336 Experiment at SLAC FACET-II on beam-driven plasma wakefield acceleration in structured solids: status and prospects
11:20 ~ 11:40	Dr. In Seok Hong (IRIS/IBS)	Dr. Hyung-sup Kong (PAL/POSTECH) Development of THz corrugated wakefield structures
11:40 ~ 12:00		Dr. Young-soon Bae (DawonMedax) LINAC-driven epithermal neutron beam for boron neutron capture therapy

| WG2 Program(Day2, Auditorium) - Beam Physics & Instrumentation

TIME(Afternoon)	Convener	Nov.9 (Thursday)
13:30 ~ 13:50	Dr. Changbum Kim (PAL/POSTECH)	Dr. Chanmi Kim (Korea University) Design and Optimization Study of the Electron Linear Accelerator for the Korea Photon Source Using Multi-Objective Genetic Algorithm
13:50 ~ 14:10		Dr. Gyeongsu Jang (POSTECH) Investigation of the ID effect on the ring parameters of Korea-4GSR
14:10 ~ 14:30		Dr. Keon hee Kim (Korea University) Simulations on multi-bunch instability due to the resistive wall wakes in 4GSR by mbtrack2-cuda
14:30 ~ 14:50		Dr. Je hwan Han (UNIST) Highly charged ion extraction beamline study for the UNIST-EBIT
14:50 ~ 15:10		Break
15:10 ~ 15:30	Dr. Moses Chung (UNIST)	Dr. Siwon Jang (PAL) Status of 4GSR Beam Position Monitor system
15:30 ~ 15:50		Dr. Ji-gwang Hwang (Gwangneung-Wonju Nat'l Univ.) Beam dynamics study for achieving the leading performance of compact UED machine
15:50 ~ 16:10		Dr. Seunghyun Lee (KAERI) Characterization of the proton test beamline at KOMAC
16:10 ~ 16:30		Dr. Ji-ho Jang (IRIS/IBS) Comparison of Beam Characteristics using Ar and Ne Beams in RAON Injector

WG3 Program(Day2, Conference Room) - Light Source Utilization

TIME(Morning)	Convener	Nov.9 (Thursday)
09:25 ~ 09:30	Dr. Deok-yong Cho (JBNU) Dr. Kyung-Tae Ko (KBSI)	Dr. Deok-yong Cho Opening Remark
09:30 ~ 10:00		Dr. Wondong Kim (Korea Research Institute of Standards and Science) Scanning Transmission X-ray Microscopy Study on Low Dimensional Magnetic Systems
10:00 ~ 10:30		Dr. Sae hwan Chun (PAL-XFEL) 4D Visualization of the Light-induced Coherent Magnon by an X-ray Free Electron Laser
10:30 ~ 11:00		Dr. Seo hyoung Chang (Department of Physics, Chung-Ang University) Visualizing quantum materials using hard x-ray techniques
11:00 ~ 11:25		Dr. Changwan Ha (Pohang Accelerator Laboratory) In-Vacuum Undulators for the First Phase Beamlines of the Korea-4GSR
11:25 ~ 11:50		Dr. Jae-Hong Lim (Pohang Accelerator Laboratory) Conceptual Design of the High Energy Microscopy Beamline at the Korea 4th Generation Storage Ring
11:50 ~ 12:00		Dr. Kyung-Tae Ko Closing Remarks

WG4 Program(Day2, Conference Room) - Particle Beam Utilization

TIME(Afternoon)	Convener	Nov.9 (Thursday)
13:30 ~ 14:00	Dr. Se byeong Lee (NCC) Dr. Taeksu Shin (IBS)	Dr. Youngyih Han (Samsung Medical Center) Proton Therapy: Present Advancements and Future Innovations
14:00 ~ 14:30		Dr. Jin sung Kim (Yonsei University) Current Status of Carbon Ion Therapy in Yonsei Cancer Center
14:30 ~ 15:00		Dr. Eun ho Kim (Daegu Catholic University) Structured Assessment of Carbon-ion Radiotherapy in treating cancers.
15:00 ~ 15:15		Break
15:15 ~ 15:30	Dr. Se byeong Lee (NCC) Dr. Taeksu Shin (IBS)	Dr. Kyeongyun Park (National Cancer Center) Feasibility study of normal tissue sparing effect in proton minibeam radiation therapy: animal experiment
15:30 ~ 15:45		Dr. Euntaek Yoon (Seoul National University) Treatment planning based on dual-layer computed tomography for carbon ion radiotherapy and dose recalculation using Monte Carlo simulation
15:45 ~ 16:00		Dr. Seohyeon An (National Cancer Center) Design study of scanning magnets for FLASH proton therapy
16:00 ~ 16:15		Dr. Junhyeok Seo (Hannam University) Defect evolution in graphene induced by He+ and He++ ion beam irradiation
16:15 ~ 16:30		Dr. Alexei Sytov (INFN Ferrara Division; Korea Institute of Science and Technology Information (KISTI)) New Geant4 simulation model of X- and gamma-rays production by electron and positron beam in oriented crystals

KOPUA 2023 Session

Thursday, November 9, 2023 (the 2nd day of ICABU2023) IBS, Daejeon, Korea

TIME	Title/Contents	Chair
10:20 ~ 10:30	Opening Address Prof. Kyung-Soo Nam (KOPUA/Dongguk Univ.) Dr. Jae-Sang Lee (KOMAC/KAERI)	S.H. Kim (Cheongju Univ.)
[KOPUA Session 1] 10:30 ~ 11:30	[KT-1] Prof. Seh-wook Lee (Kyungpook Nat'l Univ.) Calorimetry with low energy protons	H.J. Kim (Kyungpook Nat'l Univ.)
	[KT-2] Prof. Sung-joon Ye (Seoul Nat'l Univ.) Design and Calibration of Advanced Particle Dosimeter and Spectrometer (APDS) for Space Charged Particle Radiation	
	[KT-3] Prof. Sang-hoon Lim (Pusan Nat'l Univ.) Utilization of proton beams at KOMAC for testing prototype detectors	
11:30 ~ 12:00	KOPUA General Meeting	S.H. Kim (Cheongju Univ.)
12:00 ~ 12:10	KOPUA 2023 Group Photo Taking	
12:10 ~ 13:30	Lunch	
13:30 ~ 14:00	[KOPUA Poster Session]	S.-W. Han (Jeonbuk Nat'l Univ.)
[KOPUA Session 2] 14:00 ~ 15:20	[KT-4] Prof. Jae-kwang lee (Pusan Nat'l Univ.) Large enhancement of magnetic moment in nitridated CeFe12	S.-W. Han (Jeonbuk Nat'l Univ.)
	[KT-5] Prof. Su-Geun Yang, Ph.D (Inha Univ.) Effect of space proton radiation on the mouse hypothalamic neuronal cell	
	[KT-6] Dr. Jun kue Park (KOMAC/KAERI) A new analytical separation method for the superposed γ -ray spectra in $^{68}\text{Zn}(p,2p)^{67}\text{Cu}$ and $^{68}\text{Zn}(p,2n)^{67}\text{Ga}$ reactions	S.J. Noh (Danggu Univ.)
	[KT-7] Prof. Young-jun Chang (Univ. Seoul) Tuning of thermoelectric and electrical properties of 2D materials by using ion irradiation	
15:20 ~ 15:40	Coffee break	
[KOPUA Session 3] 15:40 ~ 16:40	[KT-8] Dr. Hyo-jung Seo (DAWONMEDAX) Boron Neutron Capture Therapy in Korea	K.S. Nam (Dongguk Univ.)
	[KT-9] Prof. Si-yong Kang (Kongju Nat'l Univ.) Proton beam irradiation researches for mutation breeding of useful plants	
	[KT-10] Prof. Soon-Gil Jung (Sunchon Nat'l. Univ.) Influence of low-energy ion irradiation on superconductors	
16:40 ~ 16:50	Closing Address	
16:50 ~ 18:00	Executive Meeting	