



SACLA Users' Meeting 2022

Overview

Makina Yabashi

On behalf of SACLA

March 2, 2022

SACLA Users' meeting 2022

- **10-year anniversary** since its inauguration (March, 2012)
- Second “online” meeting
- > 170 registrations
- Special thanks to ...

Yoneda-sensei (Chair of SACLA UC)

Yabuuchi-san, Tono-san, SACLA BL staff, and secretary office of RIKEN SPring-8 Center

SACLA & SPring-8:

Recent situation and perspective

- Tohoku 3-GeV SR facility is under construction; will start operation in FY2023; accelerator team of SACLA/SPring-8 is leading the project
- SPring-8 is seeking an opportunity for upgrade to “SPring-8-II” in the mid 2020’s; SACLA linac has been fully served as an injector for SPring-8 since FY2021
- Prior to SPring-8-II, we have started upgrade of beamlines of SP8
- SACLA should keep a leading position in world’s science with XFEL
 - Continuation of steady, high-quality operation
 - Pursuit of strategic approaches (SACLA BD Program)
 - Enhancement of communication/collaboration among users & facility
- Increase of utility cost (e.g., electricity fee) could become a serious issue in next FY; details will be announced as soon as we get a clear outlook

Program Day 1

JST	GMT	PST			
9:00	0:00	16:00	Welcome	Facility session	
9:10	0:10	16:10	Facility Session	Overview	M. Yabashi (SACLA)
9:30	0:30	16:30		Facility Update	K. Tono (SACLA)
10:00	1:00	17:00		Discussion	
10:15	1:15	17:15	Break	Science Topics	
10:30	1:30	17:30	Scientific Talks	Recent results of high energy density science at SACLA	N. Ozaki (Osaka Univ.)
11:00	2:00	18:00		Nonlinear X-ray spectroscopy for material science	I. Matsuda (Univ. Tokyo)
11:30	2:30	18:30	Break	Breakout sessions A	
15:00	6:00	22:00	Breakout Sessions A	Parallel Sessions	Advanced SFX (incl. materials science)
				A1: High-resolution and high-accuracy femtosecond crystallography	
				A2: New perspectives using the coupling between high-power nanosecond laser and XFEL at SACLA	
17:00	8:00	0:00	Break		

Program Day 2 AM

JST	GMT	PST	SBD Program 1		
9:00	0:00	16:00	SACLA Basic Development Program 2021	Time Resolved Resonant Inelastic X-Ray Scattering Beyond Iridium	M. Dean (BNL)
9:15	0:15	16:15		X-ray experiment in pulsed ultrahigh magnetic field beyond 100 T with a portable single turn coil system "PINK"	A. Ikeda (UEC)
9:30	0:30	16:30		Development of sub-10 nm XFEL focusing system based on novel imaging mirror optics	S. Matsuyama (Nagoya Univ.)
9:45	0:45	16:45	Break		
Breakout sessions B					
10:00	1:00	17:00	Breakout Sessions B	Parallel Sessions:	
				B1: Recent achievements and future perspectives in materials science at SACLA	Materials science
				B2: Nanofocusing XFEL: 100 nm- and 10 nm-focusing capabilities at SACLA	Nano-focusing and applications

Program Day 2 PM

Science with X-rays in 2050s (in Japanese)			
13:30	4:30	20:30	Special Session Science with X-rays in the 2050s (Language: Japanese)
15:30	6:30	22:30	Break
SBD Program 2			
15:45	6:45	22:45	Measurement systems for biomolecular movies using X-ray free electron lasers S. Iwata (Kyoto Univ.)
16:00	7:00	23:00	SACLA Basic Development Program 2021 Development of multispectral imaging system by aperture division of rotational soft X-ray mirror S. Egawa (RIKEN)
16:15	7:15	23:15	Development of a wide-dynamic-range and high-frame-rate CMOS image sensor for soft X-ray II J. Miyawaki (QST)
16:30	7:30	23:30	Summary and Closing Summary & Closing
17:00	8:00	0:00	

Satellite meeting

“Science with X-rays in the 2050s (in Japanese)”

Brainstorming discussion with young researchers: Frontier of X-ray sources and sciences in 2050s

プログラム

13:30	はじめに	米田仁紀 (電気通信大) H. Yoneda
13:40	30年後の光源について Light sources in 2050s	大坂泰斗 (SACLA) T. Osaka (SACLA)
13:50	私が想像する30年後の〇〇 Science in 2050s	藤原孝彰 (東北大学) T. Fujiwara (Tohoku U)
		堀尾眞史 (東京大学) M. Horio (Tohoku U)
		池田暁彦 (電気通信大) A. Ikeda (UEC)
		道根百合奈 (電気通信大) Y. Michine (UEC)
		稲田聡明 (東京大学) S. Inada (U Tokyo)
15:15	議論	

Enjoy the Meeting !!