

VI. Specific Synchrotron Radiation Facility Users Community (SpRUC)

Chair Akihiko Fujiwara
Kwansei Gakuin University
Editorial Secretary Hiroyuki Asakura
Kindai University

The Specific Synchrotron Radiation Facility Users Community (SpRUC) was established on March 1, 2025, through the merger of the SPring-8 Users Community (SPRUC) and the NanoTerasu Users Community (NTUC). SpRUC comprises all users of SPring-8, SACLA, and NanoTerasu, and includes not only individual members but also representative organizations from 25 institutions, including major universities, national and international research institutes, industrial entities, and beamline consortiums. These members collaborate to discuss strategic directions and future perspectives for advancing the utilization of these facilities.

The SPring-8 Symposium is a significant annual event originally organized by SPRUC. The 2024 symposium was co-hosted by Kyushu University, RIKEN, and JASRI and took place on September 5–6 at Centennial Hall, Kyushu University School of Medicine, with additional live streaming online. The event saw 61 in-person attendees and 143 participants online. The theme of the symposium, “Synchrotron Radiation and FEL for SDGs,” aimed to envision the future of next-generation synchrotron radiation and free electron laser science in the context of the Sustainable Development Goals (SDGs). Presentations focused on multi-scale advanced analysis of cutting-edge materials and devices, including semiconductors, catalysts for a hydrogen-based society, and recyclable plastics.

The symposium also featured the 13th SPRUC Young Scientist Award ceremony. This year’s recipients were Dr. Kiyofumi Takaba from the University of Vienna, Dr. Yoshifumi Hashikawa from Kyoto University, and Dr. Takumi Nishikubo from the Kanagawa Institute of Industrial Science and Technology. The next SpRUC Symposium is scheduled to be held in Sendai in 2025.

SPRUC supported the “SPring-8 Summer School,” held from July 7 to 10, to enhance users’ research competencies, and co-hosted the “SPring-8 Autumn School,” held from September 1 to 4, in collaboration with JASRI. The SPring-8 Summer School is centered around the practical use of SPring-8 and comprises lectures and hands-on training primarily aimed at master’s course graduate students. In contrast, the SPring-8 Autumn School targets a broader audience, including third- and fourth-year undergraduate students, graduate students, and corporate researchers. Notably, it is open to participants who are not registered as radiation workers. SPRUC research groups contributed to the planning and organization of



The 13th SPRUC Young Scientist Award

Prof. A. Nakagawa, Dr. K. Takaba, Dr. Y. Hashikawa, Dr. T. Nishikubo, and Prof. A. Fujiwara



SPring-8 Symposium 2024

lectures for the Autumn School. This year, 67 participants attended the program and engaged in simulated practical training at SPring-8.

SPRUC also hosted the 7th Workshop on Beamlines Upgrade on March 1–2, in collaboration with RIKEN, QST, and JASRI, as in previous years. During the workshop, the teams responsible for beamlines BL04B2, BL39XU, and BL40XU—recently upgraded—shared their current status and presented feedback on their progress. This was followed by in-depth discussions regarding the upcoming SPring-8-II upgrade, focusing on the conceptual design, construction schedule, and the beamline portfolio, including soft and hard X-ray spectroscopy as well as high-energy scattering/diffraction beamlines. The latest developments in ongoing beamline upgrades, equipment innovations, and methodological advances were also shared. Additionally, the current status of NanoTerasu was presented, alongside discussions on its utilization and future prospects.

The seventh-term SPRUC research groups were self-organized within individual research fields, comprising a total of 37 groups. These groups actively convened to exchange ideas and assess the specific needs for beamline upgrades in their respective areas. Notably, most meetings this year were conducted in person rather than online.



Joint general assembly of SPring-8 Users Community (SPRUC) and NanoTerasu Users Community (NTUC)

VII. Outreach Activities

To reach new users in unexplored application fields, SPring-8 holds various serialized seminars named “Workshop on Advanced Techniques and Applications at SPring-8.” Representative examples are as follows:

- ◆ 105th: Current Status and Future of Protein Structural Biology Research at SPring-8
September 9, 2024 • Osaka University
- ◆ 11th: Joint Workshop for Collaborative Use of Synchrotron Radiation and Neutron Beam
November 19, 2024 • SPring-8 / February 2, 2025 • J-PARC MLF
- ◆ 103rd: Current Status of Silicon Semiconductor Devices and Materials Supporting Their Production and the Use of Synchrotron Radiation
November 20, 2024 • Meeting Space AP Shinagawa