

http://ribf.riken.jp/SRF2025/

Introduction

The SRF Conference since its inaugural event in 1980, has been held every other year for over 40 years, rotating its location between Europe, North America, and Asia. Initially, discussions focused on the development of high-performance cavities for the International Linear Collider, a high-gradient electron accelerator, leveraging the technology of superconducting RF. Recent progress in the cavity performance has showcased new materials and surface processing recipes. With the establishment of the basic technology of superconducting cavities, there are now active discussions on the introduction to large-scale user facilities for not only electron but also proton and heavy ions. This has transformed the conference into a platform for the development of highperformance superconducting cavities with discussions on rising technologies for longterm operation in user facilities. Moreover, its application has rapidly expanded to detectors for dark matter, axions, gravitational waves, and quantum computers.

22ND INTERNATIONAL CONFERENCE ON RF SUPERCONDUCTIVITY

RIBF = RI Beam Factory Project at RIKEN

4 Ring Cyclotrons, 2 linear accelerators

and AVF cyclotron.

September 21-26, 2025



In 2020, SRILAC (Superconducting Riken Linear **AC**celerator) achieved beam acceleration for the first time and has since entered the stage of long-term operation, resolving various issues of different sizes.

In 2025, marking the fifth year of operation, RIKEN will host the conference. Over six days, researchers and technicians from both domestic and international arenas in the field of superconducting RF will gather, engaging in a wide range of discussions from fundamentals to through applications oral and poster presentation sessions.

1) SRF Facilities

3) Cavities

and development

4) SRF Technologies

5) SRF Applications

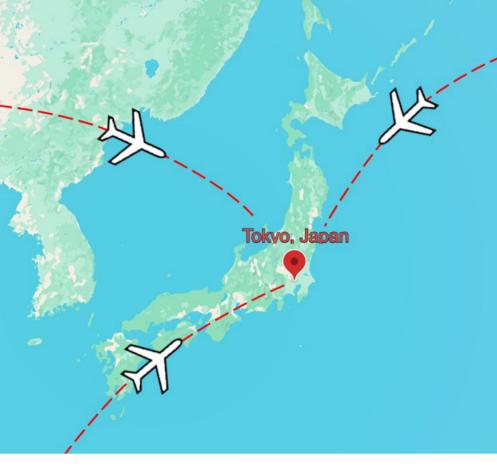
2) Fundamental SRF research

Scientific Program

SRF2023@GrandRapids



With the continued success of the previous SRF conferences, we are excited to welcome all participants to the upcoming SRF 2025 in **Tokyo, Japan**.



SRF2025@Tokyo

Venue

The conference will take place from **Sunday**, **September** 21, to Friday, September 26, at the Ito International **Research Center** located within the University of Tokyo's Hongo Campus in Japan.



Regular sessions which consists of Invited talks, Contributed Orals, and Posters will cover a broad range of topics. In addition, two "Hot Topic" panel discussions, a keynote talk will be part of the program, and an industrial exhibition will run throughout the week. A stimulating scientific program will be complemented by social events that promote informal knowledge exchange.

Early Bird Registration Deadline : 13-Jun-2025 Abstract Submission Deadline : 30-Jun-2025

Tutorial Sessions

Tutorial sessions will be held before the conference from September 18th to 20th at the RIKEN Wako campus.

- This tutorial will **SRF** Basics have a series of TM Cavities lectures for 3 full **TEM Cavities** days about SRF Fundamental and HOM Couplers related topics.
 - Cavity Fabrication and Surface
 - Preparation
 - Cavity Clean Assembly & Testing
 - Cryo Module Design & Testing High Q High Gradient

Topics:



Lab tour / Banquet

Lab tour – Superconducting LINAC / RIKEN RI Beam Factory –

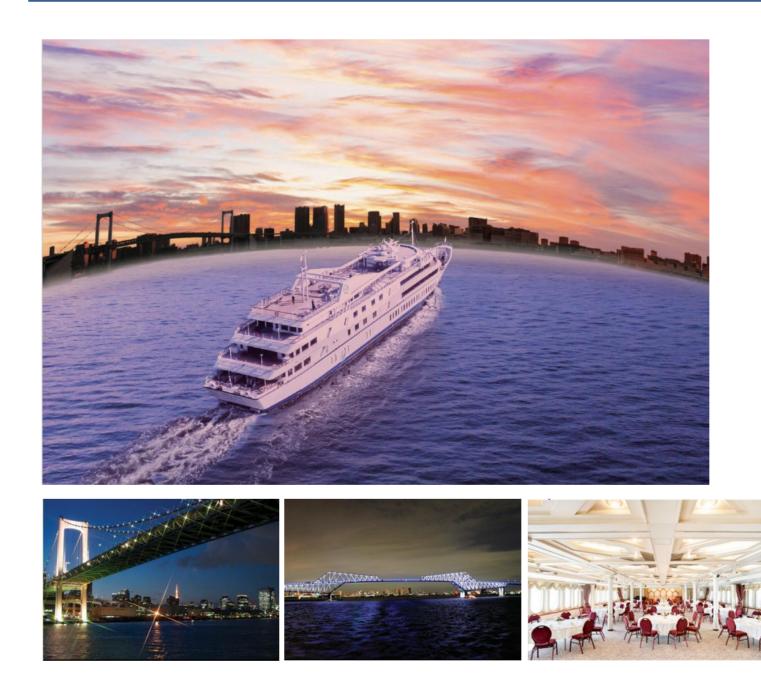
Superconducting AC (SRILAC) Ring Cyclotron (SRC)

The Lab tour will be at RIKEN Wako campus. We will visit the Superconducting Linear Accelerator (SRILAC), which consists of three cryomodules and ten quarter-wave resonators (QWRs) made from bulk niobium sheets and round rods. We will also tour the RI Beam Factory, including the Superconducting Ring Cyclotron (SRC) and the BigRIPS fragment separator.

Exhibitor/ Sponsorship Information

We are open to sponsors or exhibits at SRF2025— a unique opportunity to connect with a specialized audience of SRF researchers and users in a dedicated setting.

Banquet - Tokyo Bay Cruise-



Weight: 2,618 t Length: 83.20 m Width: 13.000 m Horsepower: 900 x 2 Capacity: 600 Sunset Cruise: 16:20-18:20 Italian/French: 20,000 JPY/person

New Materials

Beam Loading

Cryogenics

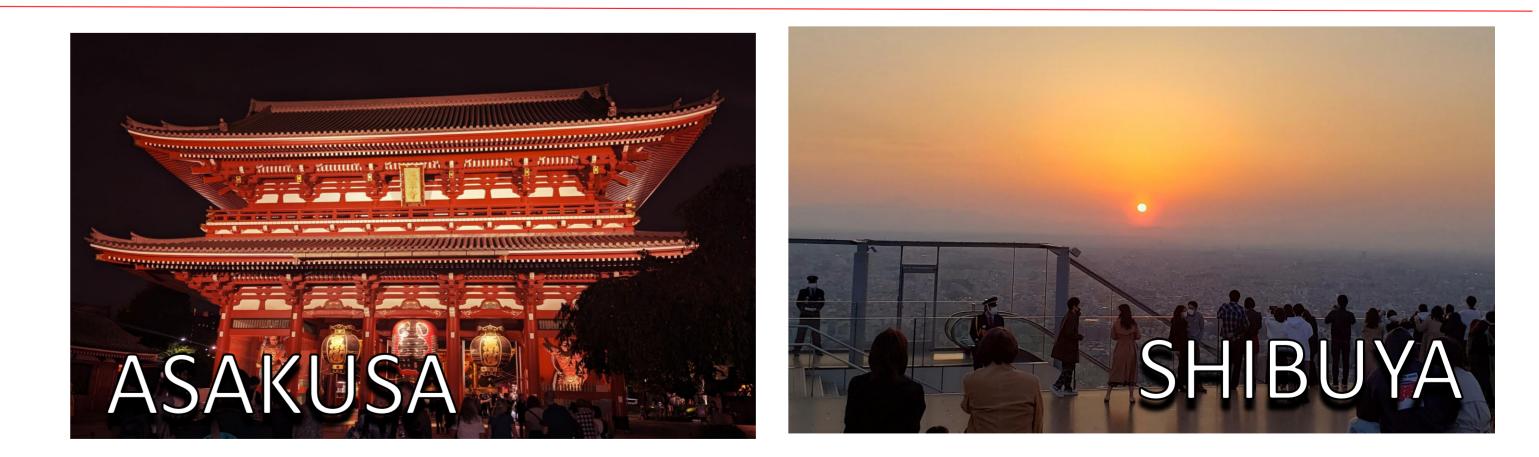
LLRF







The social banquet will be a Tokyo Bay sunset cruise. We will have a wonderful view of the city covered in the warm, golden glow of the sunset. During the boat ride, we will enjoy panorama views with iconic landmarks like the Rainbow Bridge, Tokyo Tower, and Odaiba. This will offer a stunning scenery as the day shifts to nighttime revealing the Tokyo nightscape.



Sponsoring SRF2025 will increase your organization's visibility and demonstrate your support for the global SRF community. The number of sponsorship and exhibitor opportunities are limited, so we encourage early reservation to secure your spot. **Current Exhibitors and Sponsors:**



Mitsubishi Heavy Industries Machinery Systems, Ltd. Sumitomo Heavy Industries, Ltd. Cryogenics Division

Wood Bell Co., Ltd. / power appliances Co., Ltd / Wuxi Creative Co. ltd.





Enjoy shopping, dining and sight-seeing near the conference venue !