



8th High Power Targetry Workshop

November 6-10, 2023



RIKEN, Nishina Center for Accelerator-based Science, Wako, Saitama, Japan

2nd Announcement



Dear Colleagues

This is the second announcement of the **8th High Power Targetry Workshop**, which will be hosted by RIKEN and J-PARC and will take place at **RIKEN Nishina Center for Accelerator-based Science, Wako, Saitama, Japan, from Nov. 6th to Nov. 10th, 2023**.

The HPT Workshop brings together scientists and engineers from the international community for particle accelerator targetry. Applications include neutrino facilities, neutron facilities, radioactive ion beam facilities, material irradiation facilities, accelerator driven systems, and precision experiments for rare processes. This workshop will be conducted in-person.

Important dates:

~~2023/06/10 – 08/10~~ Abstract submission
~~2023/06/30~~ VISA information form (if you need temporary visitor VISA,)
~~2023/08/31~~ Oral or poster acceptance
~~2023/09/10 – 10/15~~ Early registration
~~2023/10/1~~ Program announcement
2023/10/16 -10/25 Late registration
2023/10/20 2nd Circular
2023/11/06-11/10 Workshop

Conference Web page:

Please visit the conference web page for detailed information:

<https://indico2.riken.jp/event/3102/> .

Scientific Program:

Overview talks and contributions will cover current research and challenges both from the target maker's perspective as well as from the experimenter's point of view. Participants are invited to submit their contributions covering one of the following topics or related subjects. Themes for the workshop include:

1. R&D to support concepts [Conveners: F. Pellemoire (FNAL), D. Winder (ORNL)]
R&D: target physics, testing and material
2. Radiation damage in target material and related simulations [Convener: C. Stodel (GANIL), S. Makimura (KEK)]
Radiation damage simulation and databases
3. Post-irradiation examination [Conveners: Y. Dai (PSI), Y. Lee (ORNL)]
PIE results, feedback to R&D and design, experimental technologies
4. Target design, analysis, and validation of concepts [Conveners: C. Densham (STFC/RAL), A. Gottberg (TRIUMF)]
Target design and optimization by numerical simulations
5. Target facility challenges [Conveners: P. Hurh (FNAL), D. Kim (BNL)]
Facility radioprotection, remote handling, lifecycle challenges
6. Construction, fabrication, inspection, quality assurance [Conveners: T. Naoe (JAEA/J-PARC), K. Yonehara (FNAL)]
Integration, feedback/experience
7. Operation of targets and beam dumps [Conveners: M. Calviani (CERN), H. Weick (GSI)]
Operational experience, instrumentation and monitoring, maintenance
8. Multipurpose use of targets and beam dumps [Conveners: T. Stora (CERN), H. Okuno (RIKEN)]
Beam dump facilities for irradiation and particle generation

Time will be available for open discussion, and we would welcome suggestions of suitable topics. For those who are interested in establishing inter-laboratory collaborations, we may provide support to organize satellite meetings.

Schedule:

Detailed program is available from: <https://indico2.riken.jp/event/3102/page/323-program-distributed>

Time	Nov. 6 (Mon.)	Nov. 7 (Tue.)	Nov. 8 (Wed.)	Nov. 9 (Thu.)	Nov. 10 (Fri.)
8:30	Registration				
8:55	Announcement				
9:00	Plenary talks	#2-2	#1-2	#7-1	#4-3
9:15					
9:30					
9:45	#3-1	*Coffee Break			
10:00					
10:15	Coffee Break		Coffee Break	Coffee Break	Coffee Break
10:30					
10:50					
11:00	#8-1	#6-1	#4-2	#3-2	#5-3
11:15					
11:30					
11:45					
12:00					
12:15					
12:30	Lunch Break	Lunch Break	Lunch Break	Lunch Break	Lunch Break
12:45				SPC Meeting	
13:00					
13:15	Memorial talk for Nick Simos				
13:30			Transfer to Banquet	#5-2	
13:45					
14:00	#2-1	#4-1			#7-2
14:15					
14:30					
14:45					
15:00					
15:15	Coffee Break	Coffee Break			Coffee Break
15:30				Lab Tour	
15:45					
16:00	#5-1	#1-1	Excursion		Discussion & Closing remarks
16:15					
16:30					
16:45					
17:00					
17:15					
17:30					
17:45					
18:00					
18:15					
18:30	Welcome Reception	*Poster Session	Banquet		
18:45					
19:00					
19:15					
19:30					
19:45					
20:00			Return to Wako		
20:15					
20:30					
20:45					
21:00					

1. R&D to support concepts
2. Radiation damage in target material and related simulations
3. Post-irradiation examination
4. Target design, analysis, and validation of concepts
5. Target facility challenges
6. Construction, fabrication, inspection, quality assurance
7. Operation of targets and beam dumps
8. Multipurpose use of targets and beam dumps

#Short oral presentation session will be included in the first half hour in the poster session.

#The poster session will also include presentations by the conference sponsors.

*An emergency drill will be held for Wako Campus on **Tuesday, November 7, from 10:00 – 10:40**. Participants do **not** need to evacuate from the venue. However, an evacuation alert announcement will be played from 10:00 – 10:15, and around 10:40. During this time, we will have a coffee break and would like to take a **group photo**.

Instructions to Speakers:

• Oral presentations

Oral presentations must be presented from the computer (Windows) set up in the conference room. Use of individual laptops cannot be accommodated.

Speakers must upload their presentation to the workshop page (<https://indico2.riken.jp/event/3102/>). They must do this at least **one day** before their scheduled presentation time.

Duration: Contributed Oral: **12+3 min**, Invited Oral: **25+5 min**

Each contributed oral presentation duration will be limited to a maximum of 12 minutes. After that, there will be 3 minutes devoted to answer questions from the audience. Invited oral presentations are limited to a maximum of 25 minutes with 5 minutes devoted to answer questions from the audience.

Formats: PDF or PowerPoint (.ppt, .pptx)

Visuals for oral presentations should be in Microsoft PowerPoint, version 2010 (.ppt or .pptx), or Adobe Acrobat Reader 9 or later (.pdf).

Compatibility of animation or video files must be checked before their session by the speaker themselves.

The projector has 1920 x 1200 dot.

Fonts must be embedded to your presentation file. ([embedding fonts](#))

Upload procedure:

From [the contribution list](#) in the workshop page, select your talk. In your contribution page, scroll down to the

Presentation Materials section and click on the pencil-icon (✎) on the left side of the section (You need to be logged in to show the icon). In *Manage Material* window, select **Upload files**. In *Upload files* window, click on *Choose from your computer* and select a file from your device. Alternatively, you can drag and drop your file in the area indicated. Then, click **Upload** button at the bottom of the window.

• Poster presentations

Preparation of the posters:

Maximum poster size: **A0 Portrait** (Width 841 mm × Height 1189 mm)

Authors must bring their printed posters and put up them before the poster session.

Short oral presentations:

At the beginning of the poster session, short oral presentations will be held. The goal of the short oral presentations is to expose poster contributions to a large audience. Each short oral presentation is limited to a maximum of **1 minute** and **1 slide**. There will be no time devoted to questions after the short oral presentations as the author will be available for them during the poster session. The authors must **upload the slide no later than the day before** the presentation. The upload procedure is shown in above *Oral presentations* section. All speakers must present their presentations from the computer set up in the conference room. Use of individual laptops cannot be accommodated. Presentations are in order of the poster number.

Attendance:

For each poster, at least one of the authors is expected to present it during the poster session.

Registration and Conference fee:

Registration should be done via our conference web site no later than **October 25**.

<https://indico2.riken.jp/event/3102/registrations/361/>

Registration fees are described below.

Please pay the fee at the registration desk at the conference. Only credit cards (VISA, Master card, and American Express, etc.) are accepted. We use an online payment system 'Square' (<https://squareup.com/jp/ja>). A receipt will be issued by the LOC.

Registration desks will be open in the conference hall Monday morning through Friday morning.

After registration, you can receive your conference bag.

Registration fee for participant: ¥45,000 (early registration (Sep.10 – Oct.15)), ¥50,000 (late registration (Oct.16- Oct 25) and ¥35,000 (student)

It Includes:

- Lunch (11/6-11/10)
- Welcome reception
- Banquet with excursion
- Coffee break

Registration Fee for accompanying person: ¥15,000

It Includes:

- Welcome reception
- Banquet with excursion

Regardless of participation or non-participation of each item, the registration fee is a flat fee. All cancellations must be provided in written to the LOC.

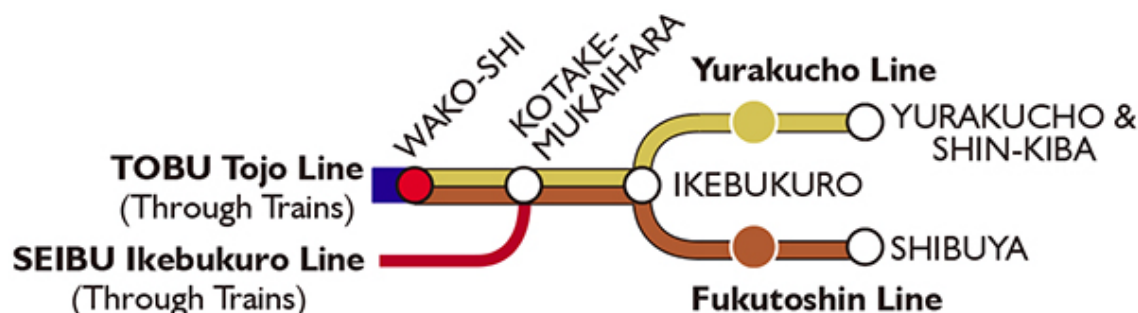
Transportation:

Information on how to reach RIKEN Wako-campus is available in the following web site.

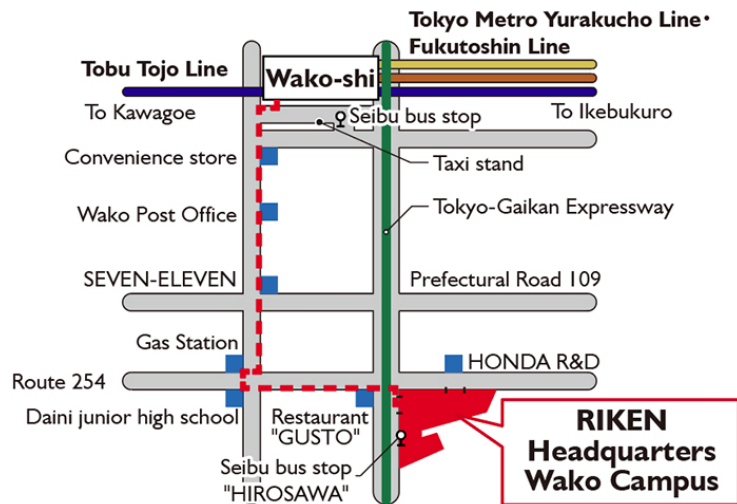
<https://www.riken.jp/en/access/wako-map/>

Important Reminder for Train from Ikebukuro Station to Wako-shi Station

The Tokyo Metro subway system offers through trains to Kawagoe-shi station on the TOBU Tojo line, and Hanno station on the SEIBU Ikebukuro line. Please make sure to take a train leaving for Wako-shi & TOBU Tojo line.



Access from Wako-shi-Station to RIKEN



Walk: 15 minutes walk from the Station

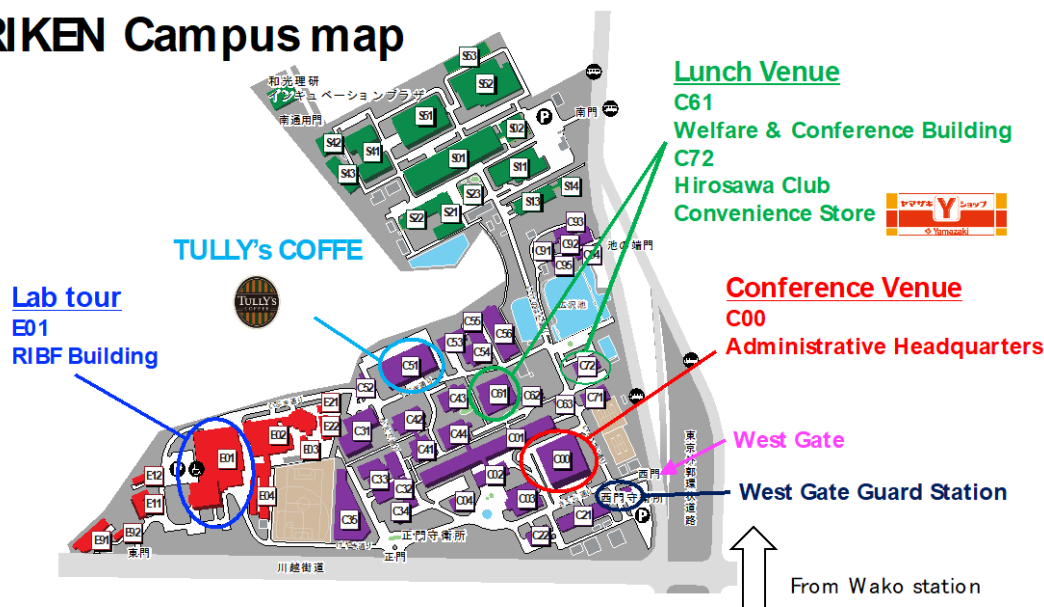
Bus: 10 minutes (SEIBU Bus #39 bound for Oizumigakuen)

Detailed information on how to reach RIKEN Wako-campus is available in the following web site.

<https://www.riken.jp/en/access/wako-map/>

RIKEN Campus map

RIKEN Campus map



Entry Procedures for Visitors

When you arrive at the RIKEN campus **for the first time**, please make a brief stop at the **West Gate Guard Station** of the campus to get your temporary ID card (with **green** strap). **Please tell the guard the name of the conference (HPTW2023) and your name.** The guard will check to see if you are listed in the participant list.

Then please come to the **Administrative Headquarters (C00)** located in front of the West Gate Guard Station. Enter the main entrance and go up to the 2nd floor. Your temporary ID card will be exchanged into the ID card available during the conference (with **yellow** strap) at the registration desk. The registration desk will be open from 8:30 AM.

After the second day of your visit, you do not need to stop at the West Gate Guard Station. Just show your ID card with yellow strap to the guard and go through the gate.

Please return your ID card to the West Gate Guard Station after the conference is closed.

Conference Venue

The conference will take place at the conference room on the 2nd floor of the **Administrative Headquarters**. The registration desk is located at the foyer of the main conference room. The registration desk will be open from 8:30 AM. Please note that the entrance of the Administrative Headquarters is usually locked and **cannot be unlocked by your temporary ID card before 8 a.m. and after 6 p.m.**

Shops

Shops listed below are available.

- **Wako Campus Cafeterias (C61) (1st floor)**

Lunch: 11:45 ~ 13:30※

Dinner: 17:30 ~ 20:00

※In principle, those who have applied for lunch boxes should use the lunch venue in the 2nd floor or Hirosawa Club shown below.

Meal payments are available only by IC cards including Suica, PASMO, etc.

Suica: <https://www.jreast.co.jp/e/pass/suica.html>

PASMO: <https://www.pasmo.co.jp/visitors/en/>

- **Tully's Coffee (C51)**

Monday – Friday: 8:30 ~ 18:30

External link: <https://www.tullys.co.jp>

- **Convenience Store “YAMAZAKI Y SHOP” (C72)**

Monday – Friday: 8:30 ~ 18:00

Social event:

- Welcome reception

Welcome reception will be held on Monday evening (17:15 – 20:00, Nov. 6) at the cafeteria of the RIKEN Wako campus (1st floor of Wako Welfare & Conference Building (C61)). The reception will include light snacks and drinks.

- Lunch

Lunch boxes will be prepared for the participant every day. Lunch venue will be the large meeting room in 2nd floor of Wako Welfare & Conference Building (C61) and the meeting room of Wako Hirosawa Club (C72).

- Banquet with excursion

We are planning a short excursion on Wednesday (**Nov. 8**) to Kawagoe city, Saitama prefecture. Kawagoe is a town of history retaining the culture and old town atmosphere of Edo (<https://www.koedo.or.jp/en/>). We plan to visit Kawagoe Hikawa Shrine and look around Kura no machi (Old Town Ichibangai Street).

Banquet will be held at Kawagoe Prince Hotel (<https://www.princehotels.com/kawagoe/>).

※Date and place of the banquet were changed from the 1st circular.

Hotel Information:

There are three hotels near Wako-station as listed below:

Wakoshi Tobu Hotel (<https://www.tobuhotel.co.jp/wako/en/>)

Super Hotel Saitama, Wako-shi Ekimae (<https://www.superhoteljapan.com/en/s-hotels/wako/>)

Toyoko Inn Wako-shi Ekimae (<https://www.toyoko-inn.com/eng/search/detail/00090>)

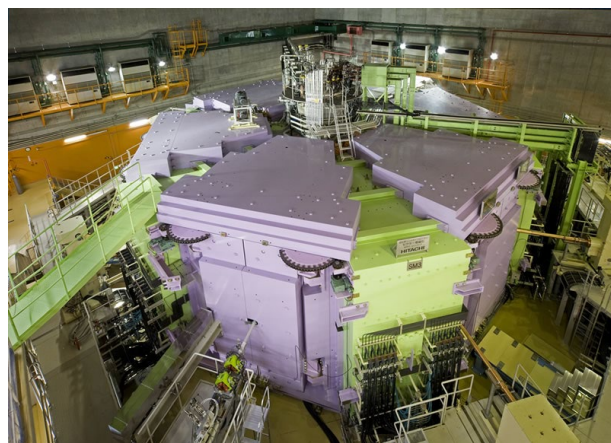
It is encouraged to have reservation as soon as possible. From Wako-shi station It takes 15 minutes to get to RIKEN Nishina Center by walk. You can find many hotels at Ikebukuro area through the web sites for hotel booking such as Expedia and Hotels.com. From Ikebukuro station to Wako-shi station it takes 12 minutes by Tobu-Tojo line or Metro Fukutoshin line as shown in the Map. If you have any problems in finding your hotels please contact with the LOC.

Lab tour:

We invite you to Lab tour at RIKEN Wako campus. In the tour, we will visit two facilities: (1) Cyclotron (SRC) and Fragment Separators (BigRIPS) (2) Compact Neutron Source, RANS and RANSII. In the tour, we ask you to divide several groups, but all groups will visit both facilities. Your group is marked on your name card.

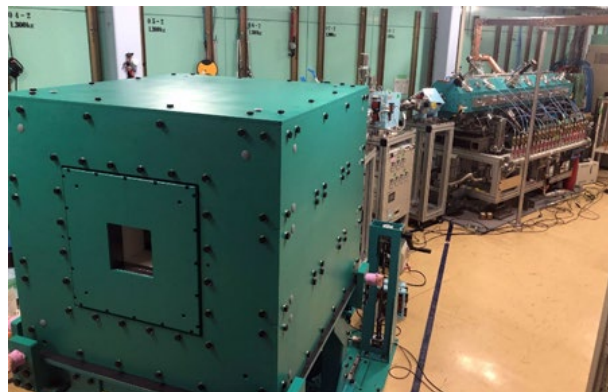
(1) SRC and BigRIPS at RIBF

The Radioactive Isotope Beam Factory (RIBF) is a facility generating unstable nuclei of all elements up to uranium and studying their properties. The RIBF is characterized by the fact that it is a multistage accelerator complex, which is generally not seen elsewhere in the world. The final-stage accelerator, the Superconducting Ring Cyclotron (SRC), is the first of a kind and is the largest (weighing 8,300 tons) and most powerful in the world. The accelerated high intensity heavy ion beams (~10kW) are injected to Fragment Separator called BigRIPS to generate an RI beam for all elements up to uranium with the world-highest intensity. These beams are provided to several experimental systems such as SHARAQ, SAMURAI, ZeroDegree to study nuclear physics and reveal the evolution of the universe. In the tour, we show the SRC and BigRIPS.



(2) RANS / RANSII

RIKEN is promoting the maintenance and advanced development of compact neutron source measurement systems with the aim of using “neutrons anytime, anywhere.” As of 2023, two RIKEN accelerator-driven compact neutron systems (RANS), RANS and RANS-II, are in constant operation, and RANS-III is currently under development at RIKEN Wako. In these systems, high power proton beams (~ a few pμA) are injected to Beryllium and lithium target to generate neutrons. In the tour, we show RANS / RANSII.



You will have the chance to visit our experiment facility and research environment etc.

Contact Information:

E-mail address: hptw2023-loc@ml.j-parc.jp.

Postal address

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<i>Y. Dai (PSI)</i>	<i>F. Pellemoine (FiNAL)</i>
<i>C. Densham (STFC/RAL)</i>	<i>C. Stodel (GANIL)</i>
<i>A. Gottberg (TRIUMF)</i>	<i>T. Stora (CERN)</i>
<i>P. Hurh (FNAL)</i>	<i>H. Weick (GSI)</i>
<i>D. Kim (BNL)</i>	<i>D. Winder (ORNL)</i>
<i>Y. Lee (ORNL)</i>	<i>M. Wohlmuther (ESS)</i>

Local Organizing Committee:

RIKEN	J-PARC (KEK/JAEA)
<i>H. Okuno (Chair)</i>	<i>S. Makimura (Co-chair)</i>
<i>T. Adachi</i>	<i>M. Futakawa</i>
<i>H. Hasebe</i>	<i>K. Haga</i>
<i>H. Imao</i>	<i>N. Kawamura</i>
<i>Y. Miyake</i>	<i>T. Matsubara</i>
<i>T. Nishi</i>	<i>T. Naoe</i>
<i>K. Sakuma</i>	<i>S. Saito</i>
<i>A. Uchiyama</i>	<i>H. Takahashi</i>
<i>K. Yoshida</i>	