## RIBF User Group Town Meeting

March 4, 2022 Online(Zoom)

• 1) Report on the RIBF UEC activity (Hinohara)

- 2) Report from Nishina Center (Yoneda-san)
- 3) Report/Announcement from Nuclear Many-Body Theory Lab (Kimura-san)
- 4) Others

## Report on the RIBF UEC activity

Nobuo Hinohara for the RIBF Users Executive Committee

#### Current member list of UEC

- Apr. 2019 Mar. 2023
  - D. Suzuki, RIKEN, vice-chair
  - H. Crawford, LBNL
  - S. Nishimura, RIKEN
  - N. Hinohara, Tsukuba, chair
  - N. Shimizu, CNS
- Apr. 2021 Mar. 2025
  - A. Corsi, CEA Saclay
  - Y. Ichikawa, Kyushu, vice-chair
  - J. Zenihiro, Kyoto
  - T. Abe, RIKEN
  - K. Sekizawa, Tokyo Tech
- Supplementary members Apr. 2021 Mar. 2023
  - S. Naimi, IJCLab

### **UEC** Activities

- Regular town meetings (online)
  - → September 2021 (during RIBF Users meeting)
  - → March 2022 (not a as a part of JPS meeting)
- Report from the MT committee (monthly)
- Member list update
- Conference calendar update (regularly)
- Bridging users and RNC

## Member list update

We are working on deleting non-active members

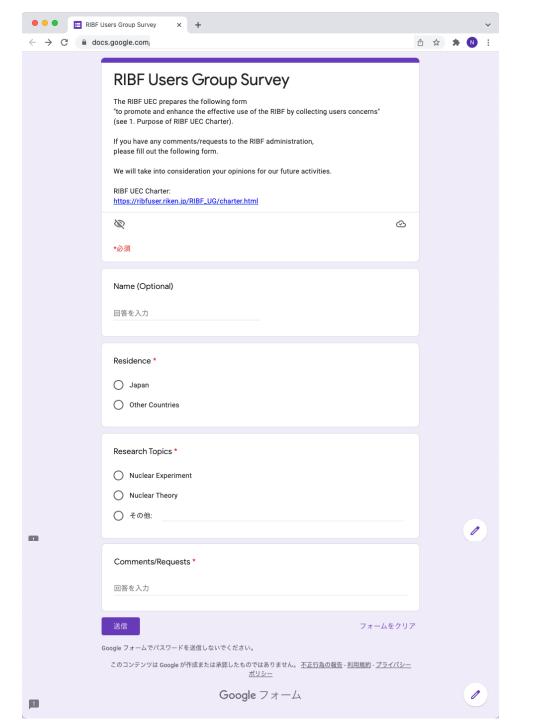
Please update your registration (by April 30, 2022)

- Visit <a href="https://ribfuser.riken.jp/RIBF">https://ribfuser.riken.jp/RIBF</a> UG/registration.html
- Click on "Update User Info."
- Enter your email address, click on "送信/submit"
- Update your information if necessary
- Irrespective of the update click on "送信/submit"

	UG members
2022 (March 3)	761
2021	749
2017	655
2015	590
2013	498
2012	550
2011	505
2010	496

## Bridging users and RNC

- Charter (<u>https://ribfuser.riken.jp/RIBF\_UG/charter.html</u>)
- The purposes of the RIBF-UG are as follows:
  - To provide a formal channel for the exchange of information between the RIBF administration and the scientists who utilize this facility for research.
  - To provide advice and feedback to the RNC Director on matters relating to the development and operation of the RIBF.
  - To promote and enhance the effective use of the RIBF by collecting users concerns.
  - To act as a supporting and consulting body for the RIBF. The RIBF-UG maintains communications through appropriate means, such as regular meetings, electronic mailing lists, shared data bases, and webpages.
- UEC: coordinate the activities of the RIBF-UG (Charter 3)
- UEC starts to survey/collect concerns and requests of users using Google form





# RIBF Status Report

## Ken-ichiro YONEDA

User Liaison Group RIKEN Nishina Center

RIBF User Group Town Meeting Web Meeting, 04 March, 2022



COVID-19

- RIBF operation in 2nd half FY2021
- MT plan in 1st half FY2022
- NP-PAC meetings

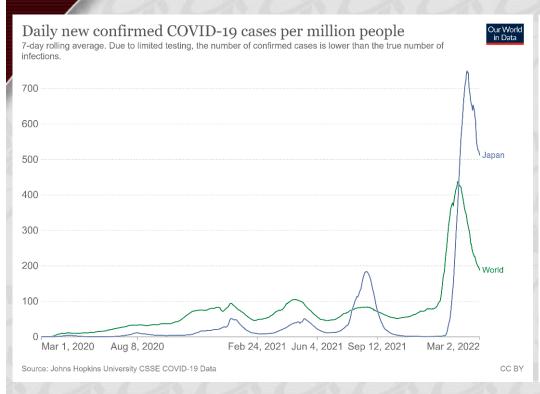
## NISHINA O E N T E R

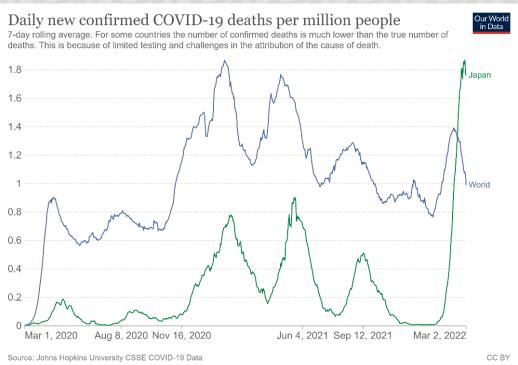
#### COVID-19 ... current status

- In Japan/Tokyo area
  - Still under "quasi-state of emergency"
    - At least until March 21
    - Still difficult for foreigners to visit RIKEN for experiments
      - On March 1 regulation changed:
         Entry foreigners 3,500/day →5,000/day (~400,000 waiting)
         RIKEN... focusing on new employers (~30 in March, ~90 later)
         RIKEN's priority list → MEXT → MOFA
- In RIKEN
  - Keep "Level-1" regulation
    - Research activities OK but with best care
    - Accelerator use ... < 20 participants/experiment</li>
    - Guideline and checklist for visitors https://ribf.riken.jp/COV/COVID.php

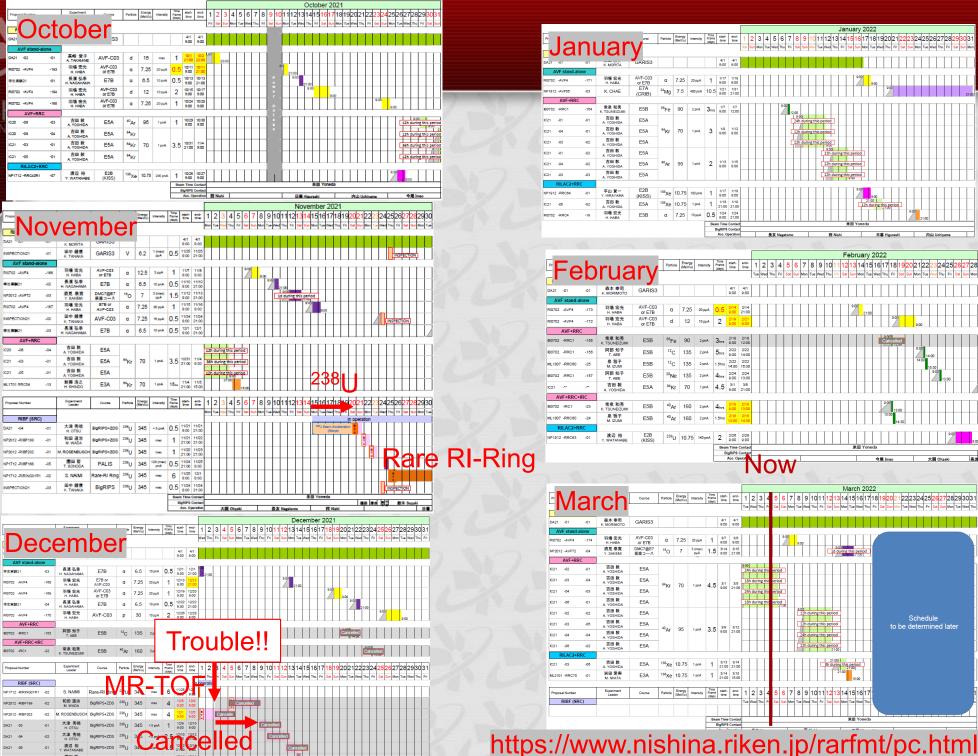
## NISHINA CENTER

#### **COVID-19 statistics**





https://ourworldindata.org/covid-deaths



https://www.nishina.riken.jp/rarfmt/pc.html



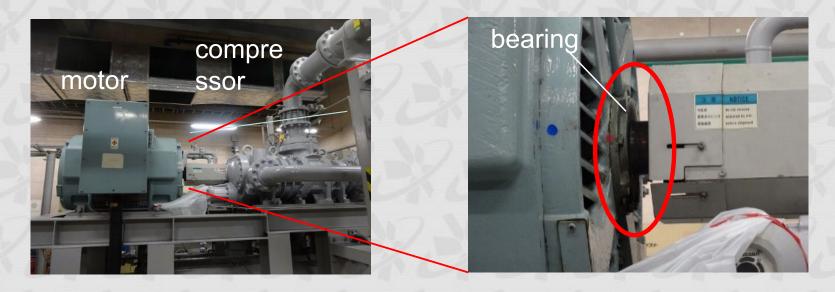
#### BigRIPS cryocooler trouble

Breakdown of BigRIPS large cryocooler compressor motor

December 3 around 7:30am

Bearing on the compressor side of motor got damaged, and heated.

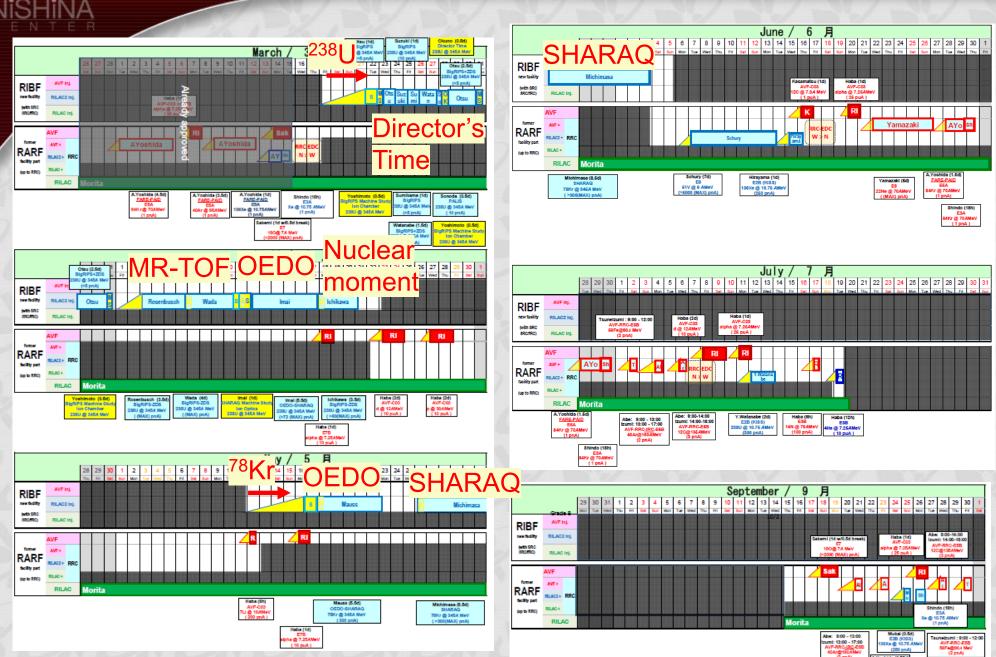
Bearing grease evaporated, big amount of smoke emitted.



→ In January the maker company fixed it in their factory by renewing bearing. There was no problem in the other parts, motor coil and so on.



#### Schedule plan March - Sep 2022 - under discussion





22nd NP-PAC meeting
held on December 1 (Wed) – 3 (Fri), 2021
On-line meeting
Presentation movies to be collected before the meeting
Only Q&A in the meeting

Next (23rd) NP-PAC meeting
to be held in December 2022
To be announced in
https://www.nishina.riken.jp/RIBF/NP-PAC/index.html

hopefully in-person meeting

# Announcement from Nuclear Many-body Theory Laboratory (核子多体論研究室)

Masaaki Kimura (RIKEN/Nishina)



#### A new Lab. for nuclear theory

- Nuclear Many-body Theory Laboratory (核子多体論研究室) has been launched (Group director: Masaaki Kimura)
- The laboratory will be in full-function from April
- O In FY2022, Kimura will work both at RIKEN and Hokkaido Univ. He will work full-time at RIKEN from FY2023





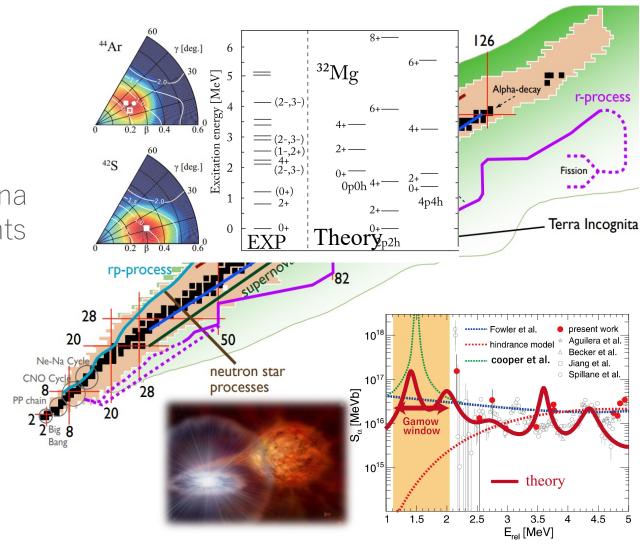
#### Goals of the Lab.

Primary Goal: Promotion of theoretical studies for nuclear structure and reactions.

Our priority is "physics of unstable nuclei"

- O Theoretical studies of unstable nuclei in collaboration with RIBF experiments
  - Exotic nuclear structure and reactions at the limits of nuclear existence
  - Nuclear reactions at explosive phenomena in the Universe, and the origin of elements
- O The Lab. will be a platform for the collaborations between RIKEN and domestic/international theory groups

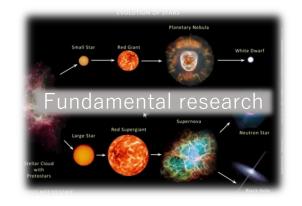
A workshop for unstable nuclear physics will be organized at RIKEN on May 30-Jun.1 (TBA)



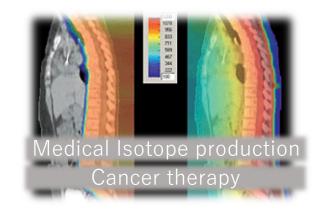
#### Goals of the Lab.

Secondary Goal: Nuclear physics for applications

Research and Development of nuclear database for applications







O We are working for the R&D of nuclear reaction database using nuclear reaction model + Al

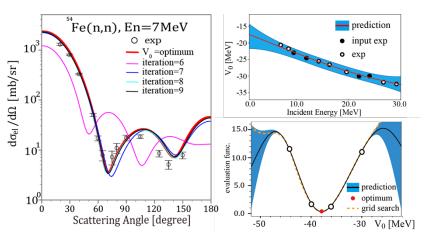
⇒ this will enhance the productivity of RIBF

Coupled Channel Optical model

$$\begin{split} V(r) &= K \left[ -V_R U_R(r) + i \left( 4W_D a_D \frac{d}{dr} U_D(r) - W_V U_V(r) \right) + V_{Coul}(r) \right] \\ &+ \left( \frac{\hbar}{m_\pi c} \right)^2 (V_{SO} + i W_{SO}) \frac{1}{r} \frac{d}{dr} U_{SO}(r) \boldsymbol{L} \cdot \boldsymbol{\sigma}, \end{split}$$







## Research opportunities

For the Lab. activities, the contributions from young generations are essential. We can offer a nice postdoc experience at RIBF

#### For Postdocs

- A postdoc position founded by JSPS budget (Application will open in Apr. or May.)
- O Special Postdoctoral Researchers at RIKEN (Deadline is Apr. 14th)
- O JSPS Postdoc fellowship (Applications open in May.)

#### For Ph. D students

- O Junior Research Associate (JRA) for students in Japanese University. (Applications opens in Sep.)
- International Program Associate (IPA) for overseas students (Applications opens in Apr. and Oct.)

We expect many applications from young people.

#### Announcements

- Nuclear Many-body Theory Laboratory (核子多体論研究室) has just started.
  - Primary target of Lab. is physics at RIBF
  - The Lab. will be a platform for the collaborations between RIKEN and theory groups
  - The laboratory will be in full-function from April
  - A workshop will be held at RIBF bldg. on Mar. 30 Jun. 1
- Research opportunities
  - For postdocs:
    - A postdoc position (科研費) in Apr. or May
    - SPR(基礎特研) until Apr. 14<sup>th</sup>
    - JSPS fellowship(学振) in May
  - For students
    - JRA for students in Japanese Univ. in Sep.
    - IPA for overseas students in Apr. and Oct.