

RIBF User Group Town Meeting

September 10, 2020
Online(Zoom)

- 1) Report on the RIBF User Group activity (Hinohara)
- 2) Report from Nishina Center (Yoneda-san)
- 3) Others

Report on the RIBF User Group activity

Nobuo Hinohara
for the RIBF Users Executive Committee

Current member list of UEC

Apr. 2017 - Mar. 2021

- K. Wimmer, CSIC, vice-chair
- S. Sakaguchi, Kyushu
- Y. Watanabe, KEK
- W. Horiuchi, Hokkaido
- T. Matsumoto, Kyushu

• Apr. 2019 - Mar. 2023

- D. Suzuki, RIKEN, vice-chair
- H. Crawford, LBNL
- S. Nishimura, RIKEN
- N. Hinohara, Tsukuba, chair
- N. Shimizu, CNS

• Supplementary members Apr. 2019 - Mar. 2021

- S. Paschalis, York
- K. Miki, Tohoku

• Next elections spring 2021

UEC Activities

- Regular town meeting at the JPS meetings
 - Town meeting canceled in March 2020 (JPS meeting canceled)
 - Town meeting held online in September 2020
- Report from the MT committee (monthly)
- RIBF Users Group Thesis Award, together with RNC
- RIBF Users Meeting 2020 (online)

RIBF User Group Thesis Award 2020

Dr. Nancy Paul (Kastler–Brossel Laboratory)
for her Ph.D. thesis “First spectroscopy of ^{110}Zr with MINOS”
(Paris-Saclay University, 2018)



- co-sponsored by RIBF UEC and RIKEN Nishina Center
- Selection Committee Members
H. Crawford(co-Chair), N. Hinohara, W. Horiuchi, T. Matsumoto, K. Miki, S. Nishimura, S. Paschalis, S. Sakaguchi, N. Shimizu(co-Chair), D. Suzuki, Y. Watanabe, K. Wimmer
- Eligibility: Ph.D. theses from March 31, 2017 to present.
- Applications due on May 24, 2020. Result released on July 15, 2020.

RIBF Users Meeting 2020

- Chaired by N. Hinohara and organized by S. Nishimura
- Online (Zoom)
- 17 invited talks:
 - 1 facility talk + 13 experimental talks + 1 thesis award
 - 2 theory talks
- Participants : 127
 - 1 Canada, 4 China, 8 France, 4 Germany, 1 Hong Kong, 2 Italy,
 - 88 Japan, 7 South Korea, 1 Romania, 2 Spain, 6 UK, 3 USA
- Account balance: 26,016 JPY from last year
(no cost for coffee break/name tags/dinner this time)

Amendment to RIBF UEC Charter

Current RIBF UEC Charter:

https://ribfuser.riken.jp/RIBF_UG/charter.html

- Update the provisions on the membership of UEC so that UEC properly represents RIBF User Group
- Define provisions on resignations of UEC members/officers, and on amendments to Charter.

Updated provisions on UEC membership

- Chair should be no member of RNC (RIKEN Nishina Center)^[*]
- Only one RNC employee can be elected in a UEC election. Among a total of 10 UEC members, maximum 2 members come from RNC.
- Chair or a Vice Chair should be theorist, unless special circumstances.

These provisions are intended to ensure the independence of UEC and the variety in UEC members.

- Maximum two supplementary members are nominated by the UEC Chair.

There is currently no provision on the number of supplementary members.

- New officer 'Observer'. At least one observer from RNC. Additional observers can be nominated if necessary. The term is one year. Observers are invited to attend the meetings of UEC.

New 'observer' unifies the responsibilities currently split over two different observing officers 'RIKEN Liaison' and 'Ex-officio'. The current officers will be discontinued.

[*] RIKEN employee are defined as a person whose primary affiliation is RIKEN Nishina Center. Those who having a visiting status or affiliating primarily with another institute via cross-appointment are not included.

When a UEC member or officer left

- When a UEC member left. UEC Chair nominates the unelected candidate who collected the most votes in the previous election to fill the vacancy or leaves the position open until the next election.
- When UEC Chair left. UEC nominates another UEC member.
- When Vice Chair left. UEC Chair nominates another UEC member.
- When a supplementary member left. UEC Chair nominates another RIBF User Group member or closes the position.
- When an observer left. UEC Chair nominates a replacing officer or closes the position (if another observer from RNC is present in the office).
- In all cases above, the replacing member or officer will serve for the remainder of the term of the predecessor.

Provisions regarding the resignation of UEC members or officers are not given in the current Charter.

Amendment to Charter

- UEC prepares the draft Charter.
- UEC communicates the draft Charter to the RIBF User Group in a town meeting and/or by e-mail.
- UEC collects feedbacks from the RIBF User Group during a defined period of time (nominally 2 weeks).
- UEC prepares an updated draft if necessary. UEC communicates the updated draft to the RIBF User Group to repeat the process.
- UEC enacts the draft Charter once all feedbacks from the RIBF User Group were addressed. UEC announces the new Charter to the RIBF User Group.

The point is that no voting process is involved to amend the Charter.

This time, UEC will prepare the draft after this town meeting. The draft will be circulated to the RIBF User Group by the end of the year.

RIBF Status Report

Ken-ichiro YONEDA

User Liaison Group

RIKEN Nishina Center

RIBF User Group Town Meeting
Web Meeting, 10 September, 2020

- Announcement on Nishina Center Organization
- RIBF operation under COVID-19 effect
- Trouble of RRC RF Cavities
- next NP-PAC meeting

Prof. H. Sakurai New Director of Nishina Center

PREFACE



RIKEN Brookhaven Research Center.

The year 2019 was the first year of the new Japanese era “Reiwa,” which started on May 1. In RNC, this new period was celebrated with the results obtained from the first spectroscopy of ^{78}Ni , which was published in Nature, issued on the second day of Reiwa, May 2. Other selected achievements are compiled in “Highlights of the Year” in this volume, which showcase the multi-disciplinary activities of RNC in the field of science, technology, and innovation. It should be noted that these achievements were made not just by in-house researchers and engineers in RNC; for some of these projects, RNC collaborated with users at the RI Beam Factory (RIBF) and RIKEN Muon Facility at the Rutherford Appleton Laboratory.

The RIKEN Accelerator Progress Report is the annual report of all research activities conducted in RIKEN Nishina Center for Accelerator-Based Science (RNC). This volume, No. 53, covers the activities conducted in the Japanese fiscal year of 2019 (April 2019 to March 2020).

First, March 31, 2020 was the last day for Hideto En'yo as the Director. Hideto led the RNC for a long period, since October 2009. On this occasion, all RNC members wish to express their gratitude and thank him for his management over ten and half years. During this period, one of the many excellent achievements of RNC was the discovery of Element 113, “Nihonium.” The year 2019 was designated as the International Year of the Periodic Table (IYPT). Hideto served as a member of the IYPT-Japan Committee and organized a session for the Closing Ceremony in December, Tokyo, to demonstrate the world-wide efforts in “Creation of superheavy elements,” with a focus on period-7 elements including Nihonium. In April 2019, David Morrison was appointed as the Deputy Director of

Accelerator Progress Report 2019 Vol.53
to be released soon

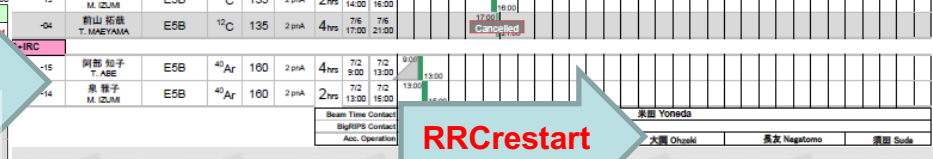
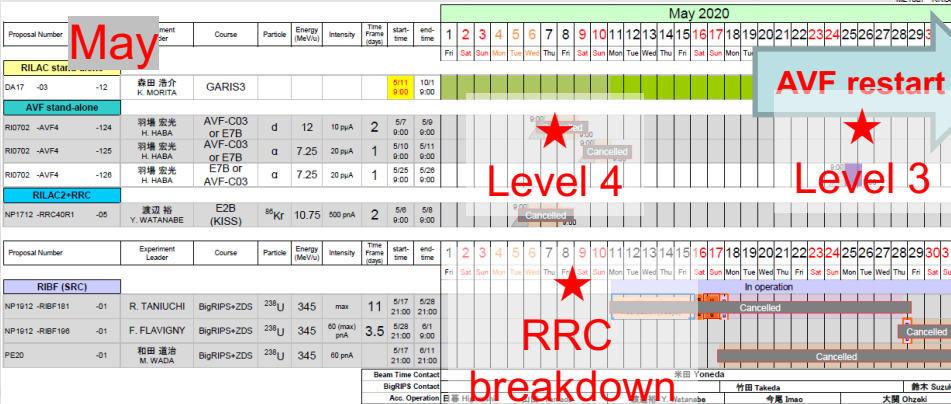
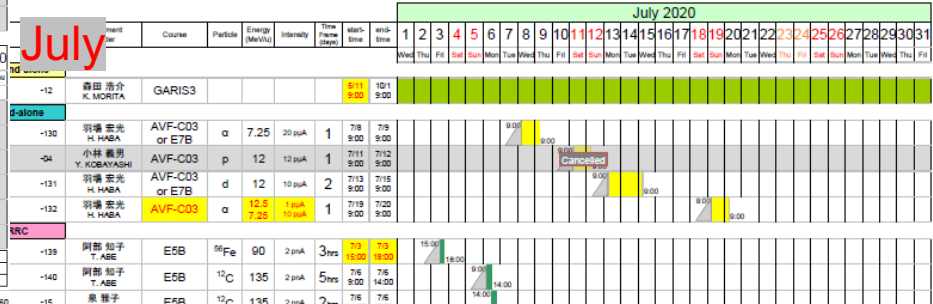
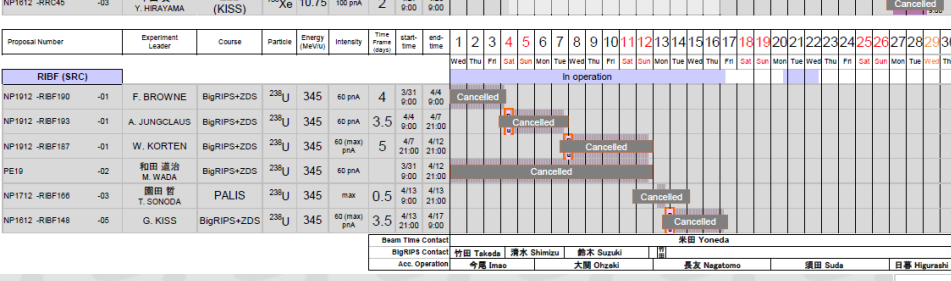
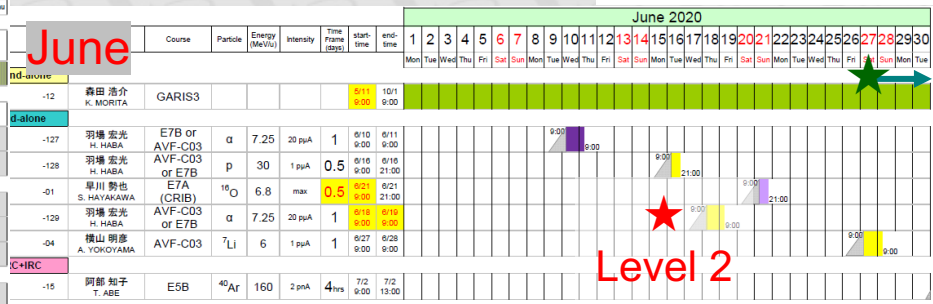
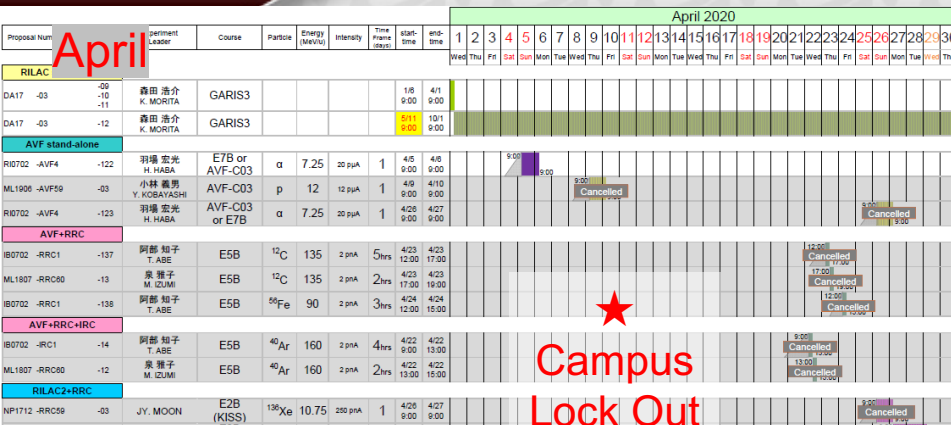
From 2006: Dr. Y. Yano 1st Director

From 2009: Dr. H. Enyo 2nd Director

From 2020: Prof. H.Sakurai 3rd Director

RIBF operation under COVID-19 effect

S-RILAC
beam delivery started

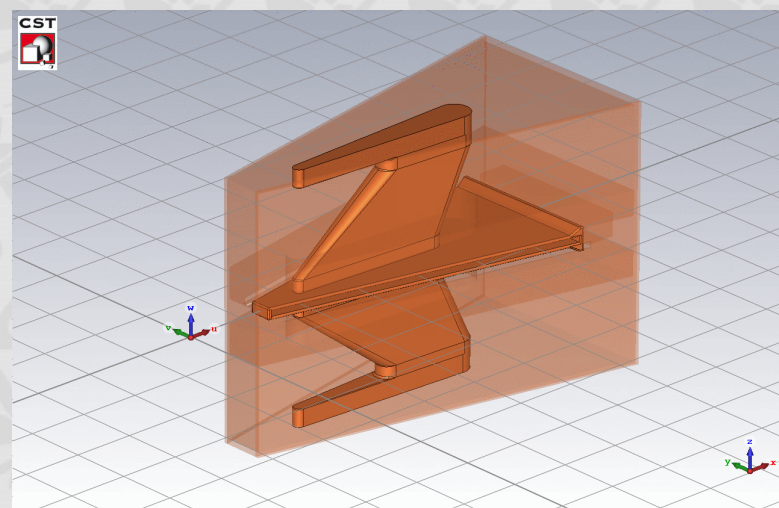
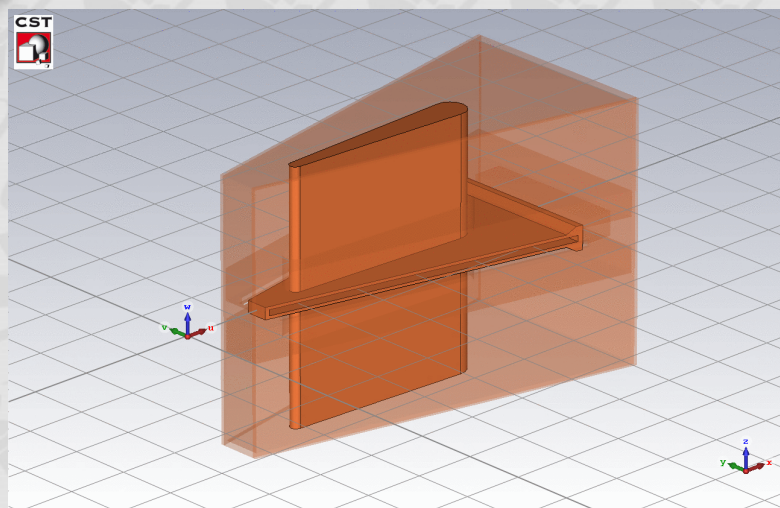


AVF restart

RRCrestart

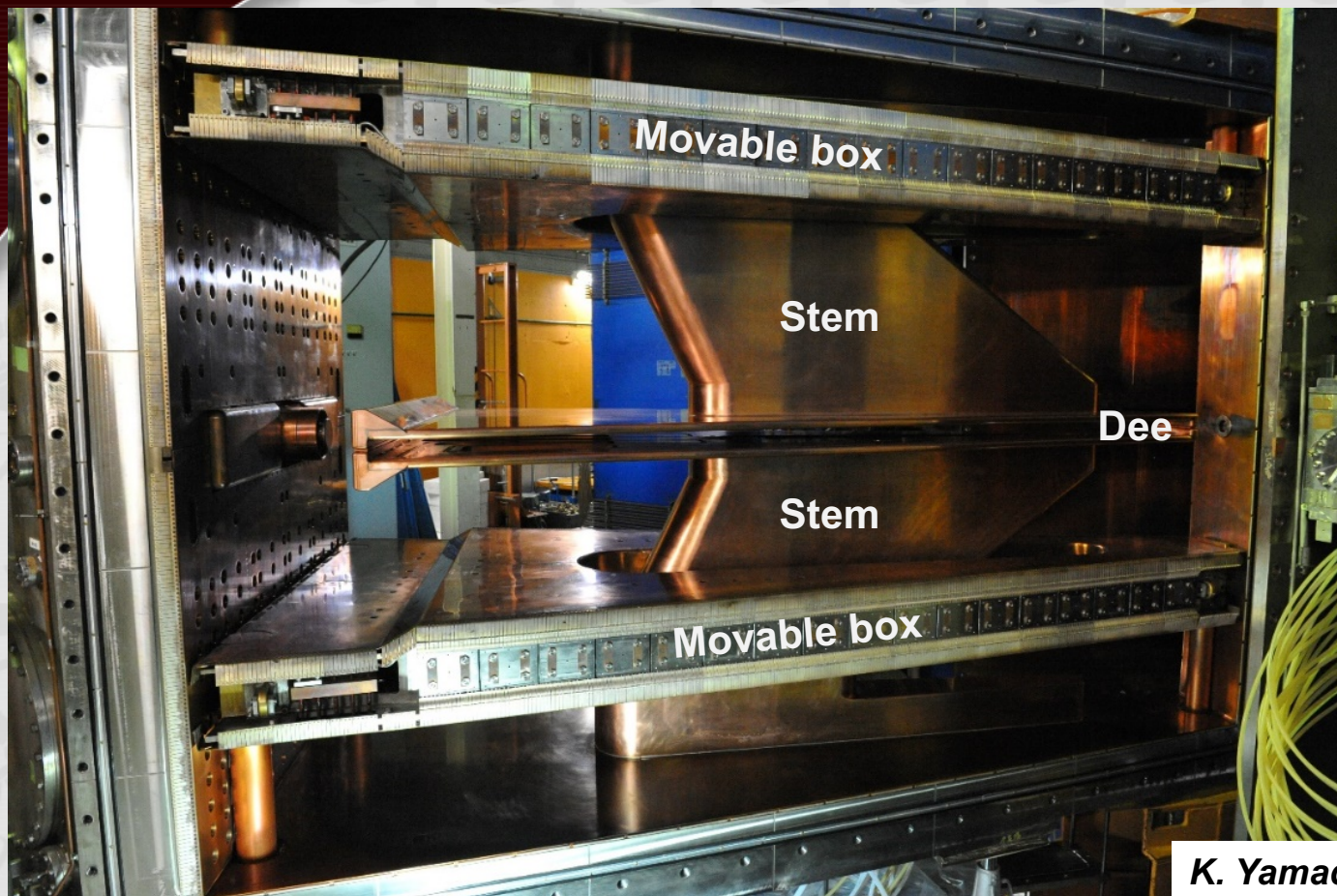
- Level 1 from early September
- (almost) regular operation including SRC-BigRIPS

picture by K.Yamada



- old cooling water pipe → renewed
- Frequency coverage 20-45MHz → 16-38.7MHz
V acceleration 18.25 MHz to be in the range
(U acceleration also 18.25 MHz)

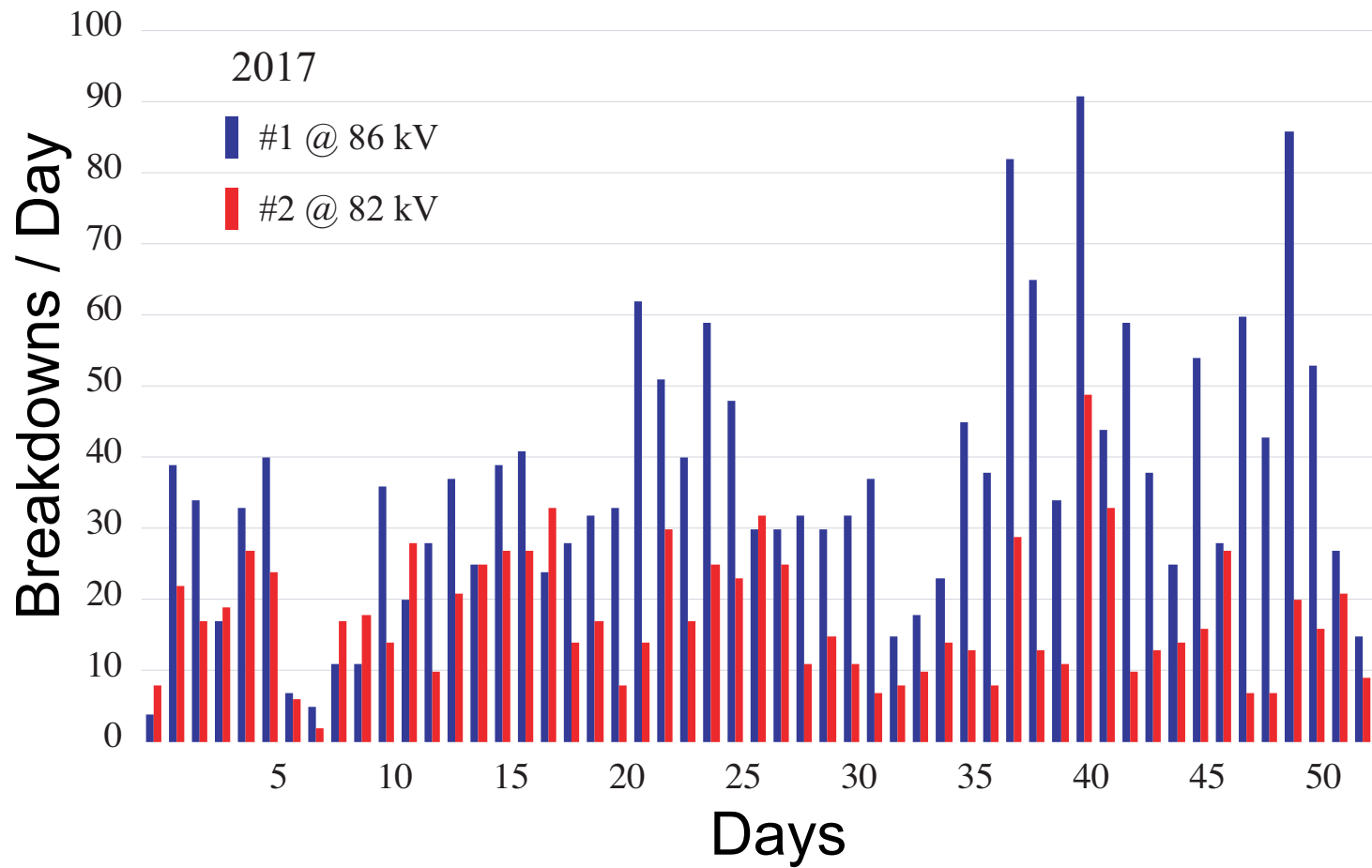
RRC Cavities update (March 2018) → Stem&Dee renewed



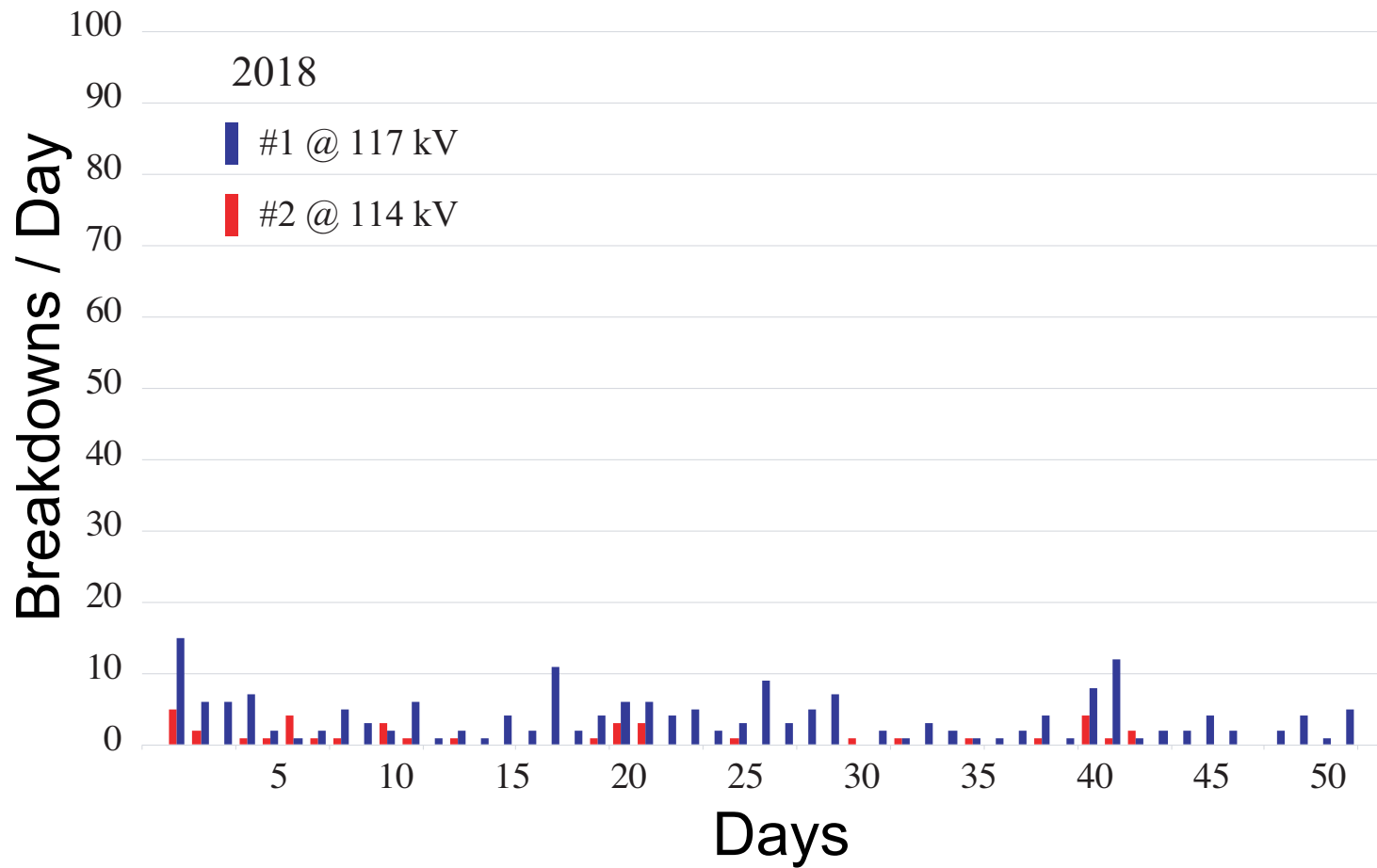
HV achieved
150 kV@ 18.25 MHz
↓
U: 94 pA
Xe: 173 pA

K. Yamada et al., RIKEN APR vol. 52

Discharge **before** update



Discharge **after update** → much improved



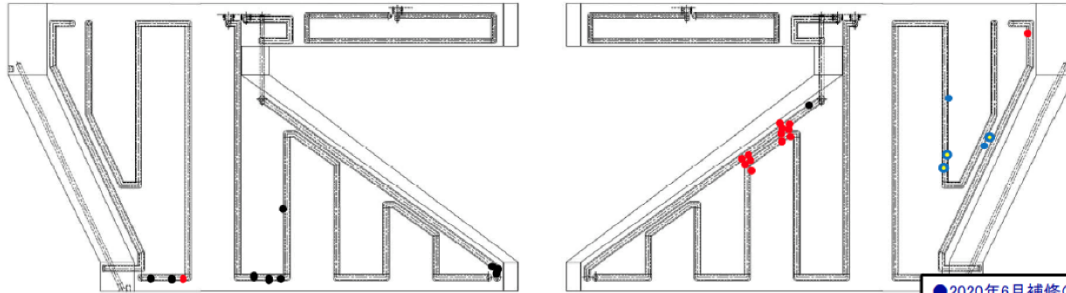
Ch 1補修箇所

左側

中心

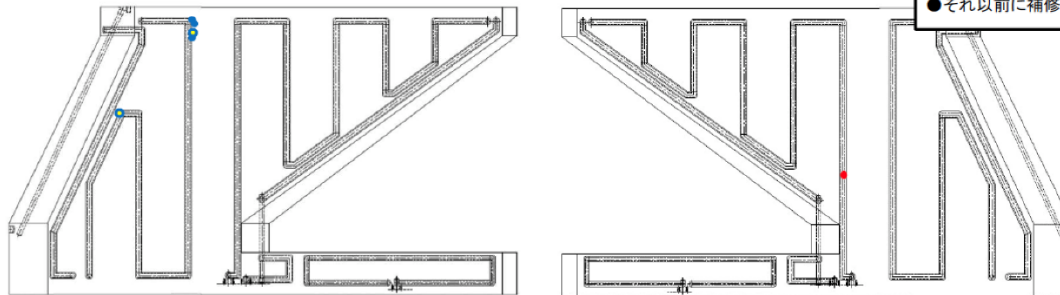
右側

U
P
P
E
R



- 2020年6月補修○初期発見
- 2019年8月補修
- それ以前に補修

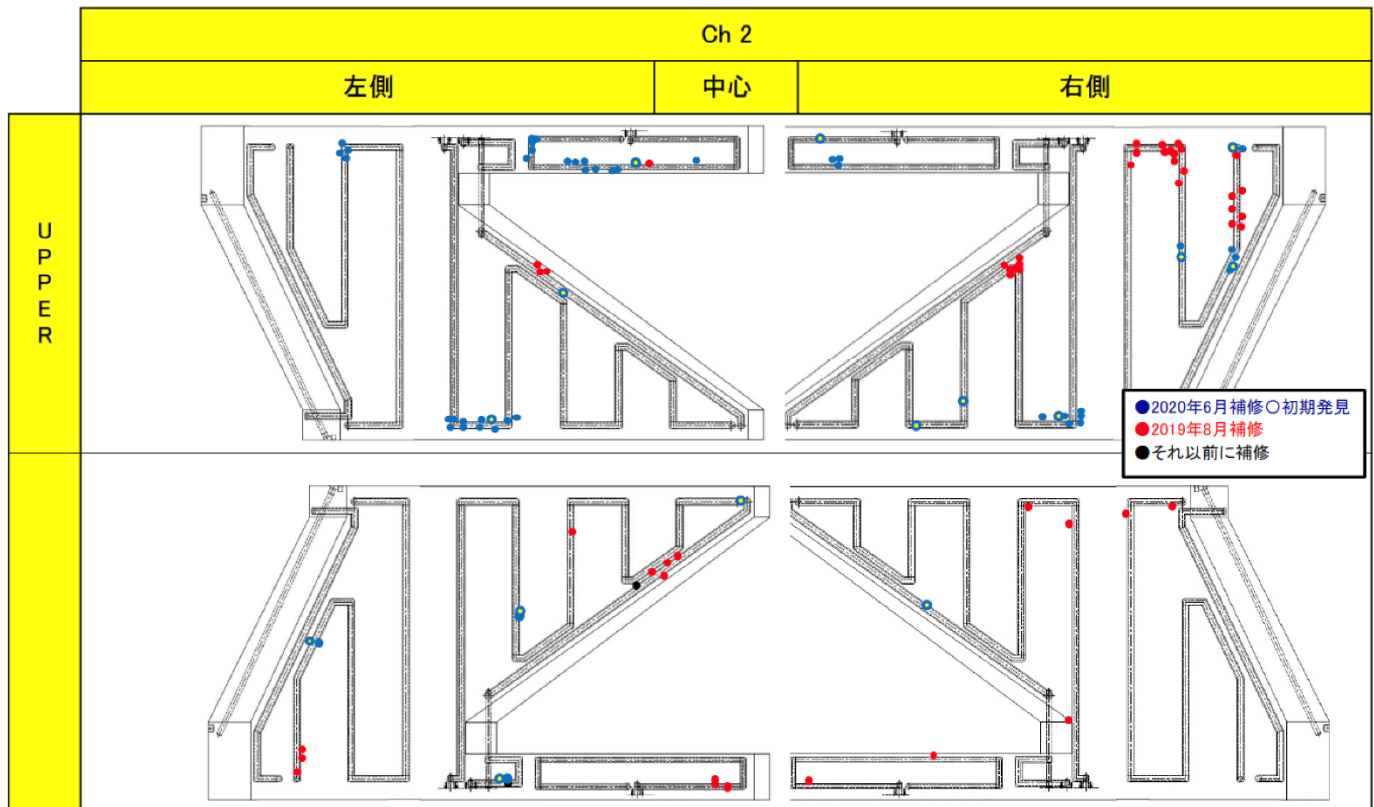
L
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r



補修数(参考値)
同一箇所を重ねて補修のものは1個とカウント。

Ch1	水路No	補修数			合計
		以前	19.08	20.06	
	#41	0	0	0	0
	#42	2	1	5	8
	#43	4	25	0	29
	#45	3	5	0	8
	#46	0	1	0	1
	#47	0	0	0	0
	#48	0	0	4	4
	#49	0	1	0	1
	#51	0	0	0	0
	#52	0	0	0	0
	計	9	33	9	51

2019年:33箇所
2020年:9箇所



補修数(参考値)
同一箇所を重ねて補修のものは1個とカウント。

水路No	補修数			合計
	以前	19.08	20.06	
Ch2 #41	0	1	22	23
#42	0	25	12	37
#43	0	4	20	24
#45	0	0	0	0
#46	0	0	0	0
#47	0	5	0	5
#48	0	5	2	7
#49	0	4	3	7
#51	2	4	2	8
#52	0	0	0	0
計	2	48	61	111

2019年:48箇所
2020年:61箇所



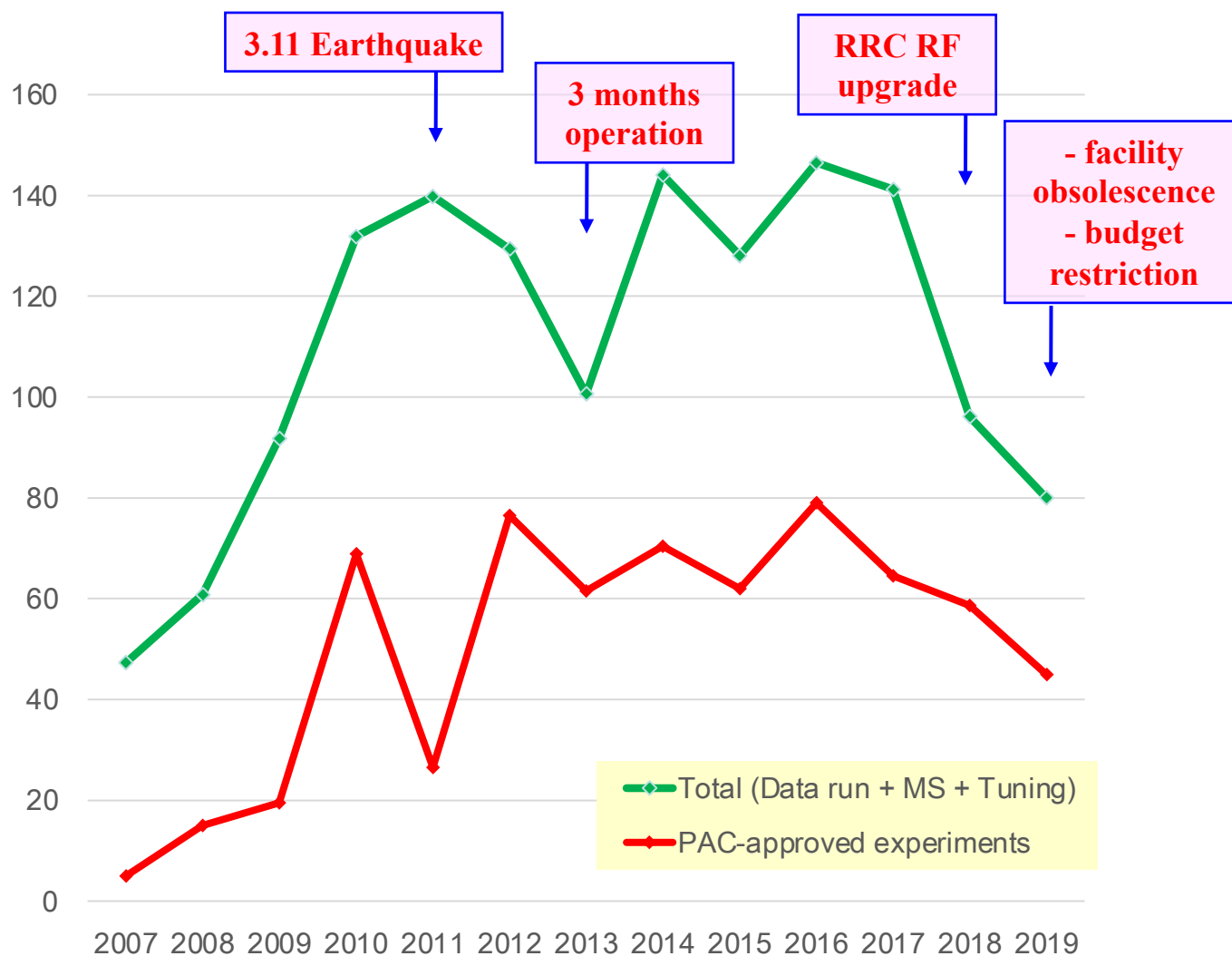
next NP-PAC

21st NP-PAC meeting
to be held on December 14 (Mon) – 16 (Wed)

Proposal submission deadline is
October 19 (absolute)

4-year expiration → 4.5 years for this time

Total beam time for BigRIPS experiments



- Next NP-PAC meeting on Dec 14-16
proposal submission till Oct 19
- Research environment getting recovered
- Potential Problem of RRC RF Cavity