

RIBF User Group Town Meeting

@Utsunomiya

1. RIBF user group activity report (Isobe, 20 min.)
2. Nishina center report (Yoneda, 15 min.)
3. Announcement of the RIBF10 symposium (15 min.)

UEC activity

- Report at RIBF MT Committee meeting
 - Outage of Ca ion source.
 - No beamtime request was made for 2017 fall.
 - Hopefully news from Yoneda-san.
- Thesis award
- RIBF 10th anniversary symposium
- Users meeting

FY2017 RIBF UEC members

- Apr. 2015 - Mar. 2019
 - T. Isobe : RNC : Exp. : Chair
 - T. Nakamura : Titech : Exp. : HP
 - S. Ota : CNS : Exp. : Users meeting
 - Y. Kanada-En'yo : Kyoto : Theor. : Thesis award
 - K. Yoshida : Niigata : Theor. : vice-chair, RIBF User Group List
- Apr. 2017 - Mar. 2021
 - K. Wimmer : U-Tokyo : Exp. : vice-chair → chair from FY2018
 - S. Sakaguchi : Kyusyu : Exp. : HP, Users meeting HP
 - Y. Watanabe : KEK : Exp. : Users meeting
 - W. Horiuchi : Hokkaido : Theor. : Thesis award
 - T. Matsumoto : Kyusyu : Theor. : RIBF User Group List

Thesis award: RIBF Users Group Thesis Award 2017

- Call for application 2017 March
- Deadline for application 2017 April
- 13 applicants (exp:9, th:4)
 - 9 at 2016
- Selection Committee Member:
W. Horiuchi, T. Isobe, Y. Kanada-En'yo, T. Matsumoto, T. Nakamura, S. Ota, S. Sakaguchi, M. Wakasugi, Y. Watanabe, K. Wimmer, K. Yoshida, J. Zenihiro
- The nominee is supposed to have completed his or her doctorate within 5 years.

- Major changes in call for the Award:
- [1] For theoretical study, the contribution to experimental researches at RIBF is explicitly requested.
 - "This is the announcement of RIBF Users Group Thesis Award, which honors the achievement of a young scholar who earned his or her doctoral degree based on an RIBF experiment (using BigRIPS, GARIS, CRIB, RIPS, etc.), or a theoretical study contributing to experimental researches at RIBF."
- [2] We accepted non-English thesis in the following condition. For non-English thesis, we asked peer review to native researchers out from the selection committee.
 - "A non-English thesis is accepted if there is English publication(s) which contains main results of the thesis. For the non-English thesis, (5) an extended abstract (about 5 pages) including brief description of each chapter is required in addition to the standard abstract (2)."

Thesis award: RIBF Users Group Thesis Award 2017

- Dr. Kazuyuki Sekizawa: Multinucleon Transfer Reactions and Quasifission Processes in Time-Dependent Hartree-Fock Theory
 - University of Tsukuba in 2015
- Dr. Jin Wu: Beta-decay spectroscopy of $Z=55\sim 67$ neutron-rich nuclei
 - Peking University in 2016

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RIBF Status Report

Ken-ichiro YONEDA

User Liaison and Industry Cooperation Group

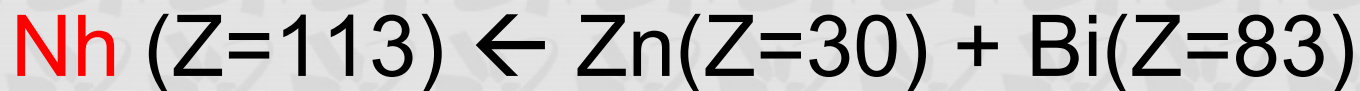
RIKEN Nishina Center

RIBF Users Group Town Meeting

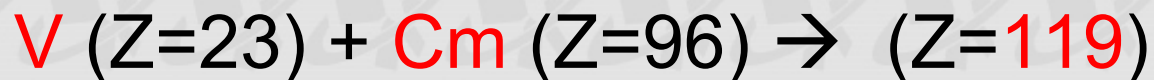
Utsunomiya University, Utsunomiya, September 12, 2017

- Plan for Next SHEs
- GARIS2 Relocation
- RIBF Beam Time Operation in 1st Half of FY2017
- Beam Time Plan in and after 2nd Half of FY2017
- Announcements

Plan for next SHEs



Next new SHEs – **Z=119,120**

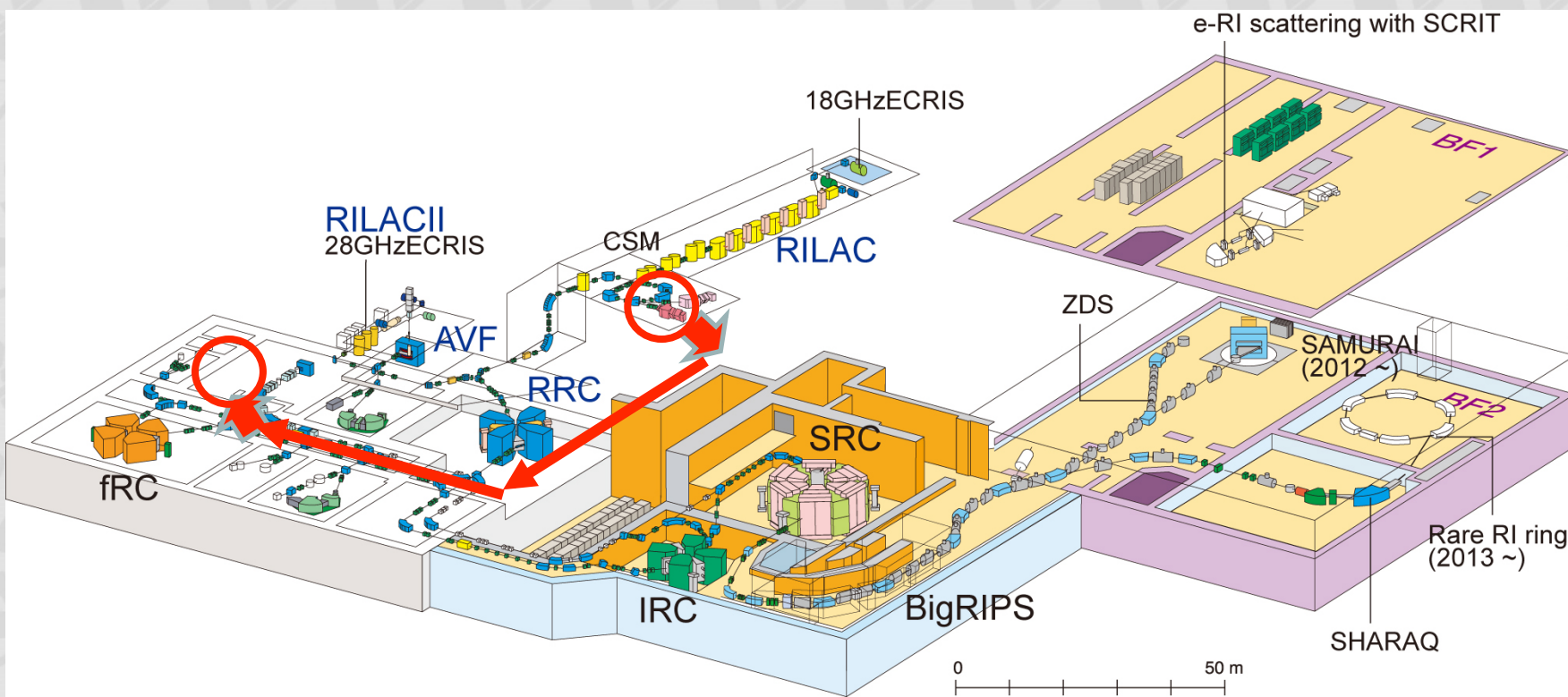


in collaboration with
Oak Ridge National Laboratory (for Cm)

Z=119 will be attempted first

GARIS2 Relocation

- RILAC ... to be upgraded for next SHEs
 -- not available until autumn 2019
 → **GARIS2** to **E6** to keep on running



GARIS2 @ RILAC大照射室 → 解体



搬出



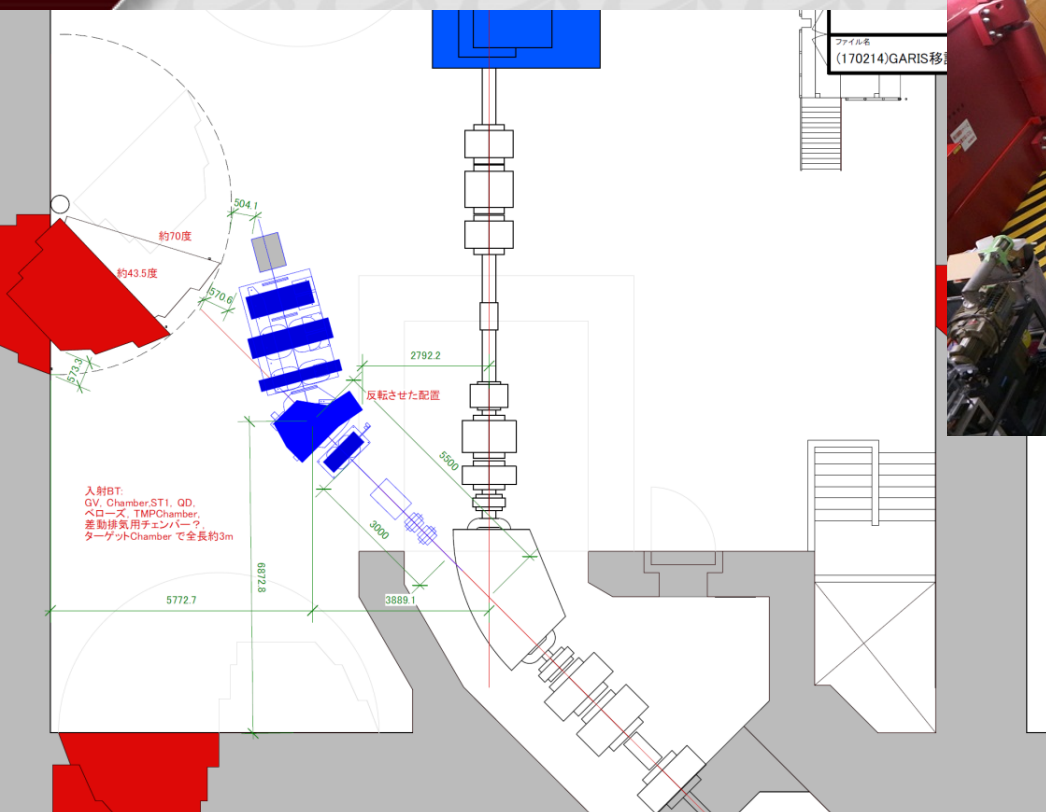
双極電磁石(16トン)反転@BigRIPS本体室



E6へ搬入



移設完了

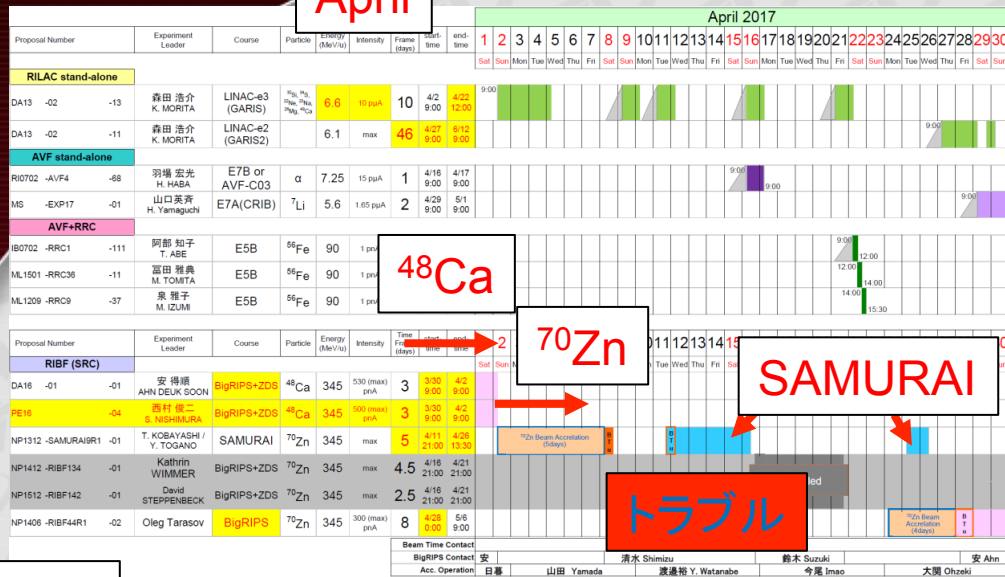


Photos by 渡邊裕さん、宮内さん、森本さん

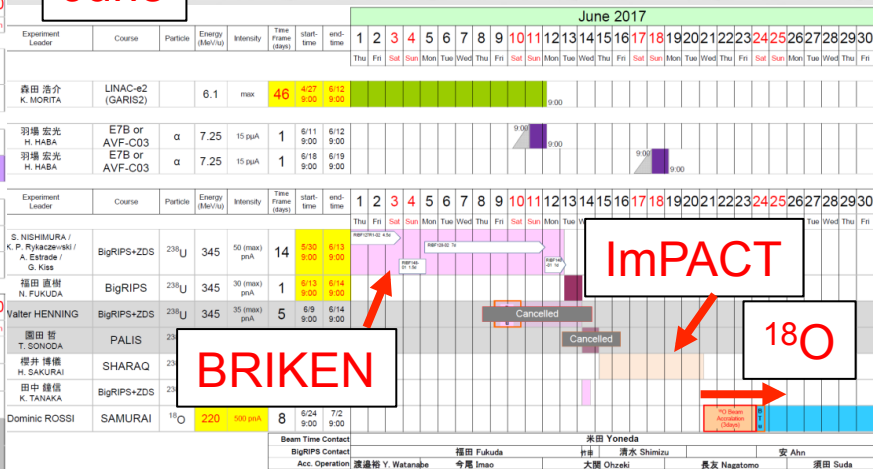


Beam Time Schedule: Apr.– Jul. 2017

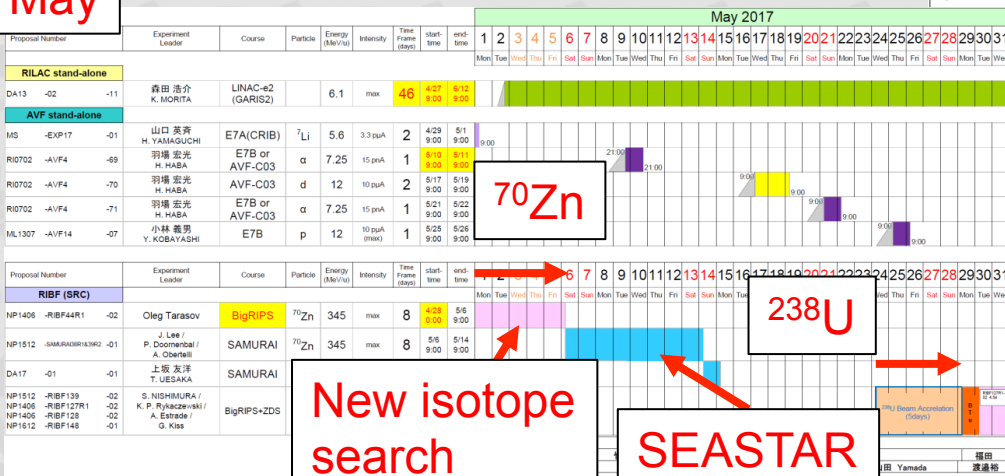
April



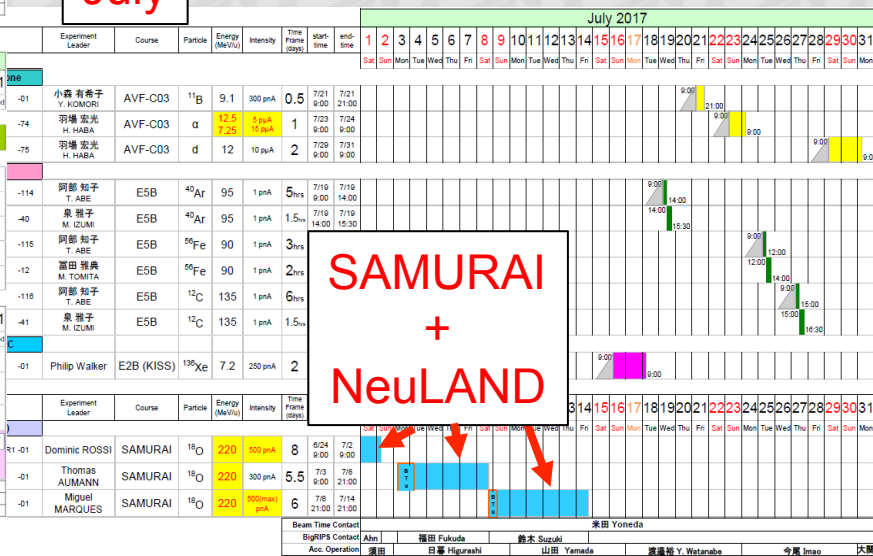
June



May



July



Beam Time Schedule: Aug.– Sep. 2017

August

											August 2017																														
Proposal Number	Experiment Leader	Course	Particle	Energy (MeV/u)	Intensity	Time Frame (days)	start-time	end-time	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
									Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat
RILAC2+RRC									夏期メンテ																																
NP1512 -RRC41	-03	平山 賢一 Y. HIRAYAMA	E2B (KISS)	¹³⁶ Xe	10.75	250 p/nA	4	9/15	9/19																																

停電・メンテナンススケジュール
Schedule for inspection of RRC electricity system (power outage)

設備名	稼働	メンテナンス	備考
中央制御室	○		
放射線検出器	○		
電子光学系	○		
真空系	○		
冷却系	○		
電源系	○		
圧縮空気系	○		
排気系	○		
安全系	○		
通信系	○		
記録系	○		
監視系	○		

September

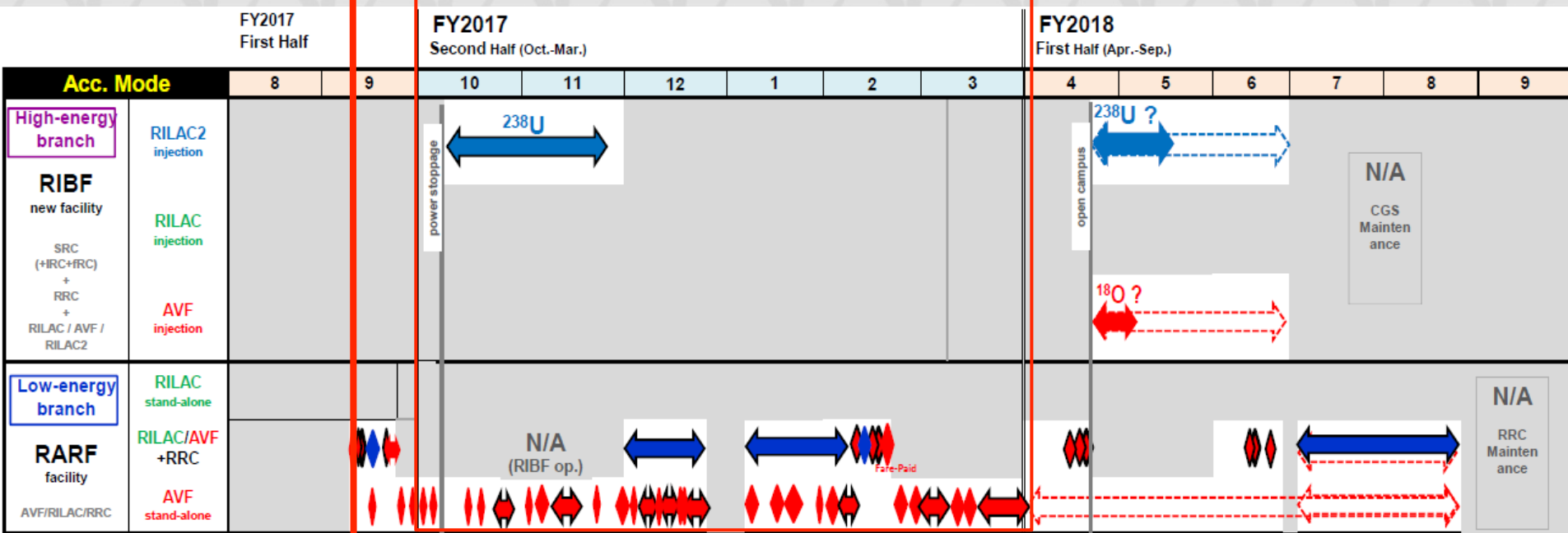
											September 2017																													
Proposal Number	Experiment Leader	Course	Particle	Energy (MeV/u)	Intensity	Time Frame (days)	start-time	end-time	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
									Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun	
AVF stand-alone																																								
MS -ACC17	-02	大西 純一 J. OHNISHI	AVF-C01	d. d.	12, 14	25, 25	1.5	9/7	9/8	9:00	21:00																													
ML1501 -AVF14	-08	小林 義男 Y. KOBAYASHI	AVF-C03	p	12	10 ppA (max)	1	9/18	9/17	9:00	9:00																													
RI0702 -AVF4	-78	羽塚 宏光 H. HABA	AVF-C03	α	7.25	15 ppA	0.5	10/2	10/3	9:00	9:00																													
ML1501 -AVF25	-03	笠松 良崇 Y. KASAMATSU	AVF-C03	¹⁸ O	6.07	1 ppA	1	9/27	9/28	9:00	9:00																													
ML1701 -AVF40	-01	横山 明彦 A. YOKOYAMA	AVF-C03	⁷ Li	6	1 ppA	1	9/27	9/28	9:00	9:00																													
AVF+RRC																																								
IB0702 -RRC1	-117	阿部 知子 T. ABE	E5B	¹² C	135	1 p/nA	1	9/9	9/9																															
ML1209 -RRC9	-42	泉 雅子 M. IZUMI	E5B	¹² C	135	1 p/nA	1	9/16	9/17	15:00	15:00																													
ML1501 -RRC34	-05	新藤 浩之 H. SHINDO	E3A	⁸⁶ Kr	66	1 p/nA	1	9/9	9/9																															
IB0702 -RRC1	-118	阿部 知子 T. ABE	E5B	⁵⁶ Fe	90	1 p/nA	3 hrs	9/20	9/20	9:00	12:00																													
NP1612 -RR47	-01	西畑 洗希 H. NISHIBATA	E6 (RIPS)	²² Ne	70	200 (max) p/nA	5	9/21	9/28	9:00	9:00																													
AVF+RRC+IRC																																								
IB0702 -IRC1	-05	阿部 知子 T. ABE	E5B	⁴⁰ Ar	160	1 p/nA	5 hrs	9/13	9/13	9:00	14:00																													
ML1209 -RRC9	-43	泉 雅子 M. IZUMI	E5B	⁴⁰ Ar	160	1 p/nA	1.5 hrs	9/13	9/13	14:00	15:30																													
RILAC2+RRC																																								
NP1512 -RRC41	-03	平山 賢一 Y. HIRAYAMA	E2B (KISS)	¹³⁶ Xe	10.75	250 p/nA	4	9/15	9/19	21:00	21:00																													

メンテ期間 1week 長<

Beam Time Operation -- FY2017 2nd Half

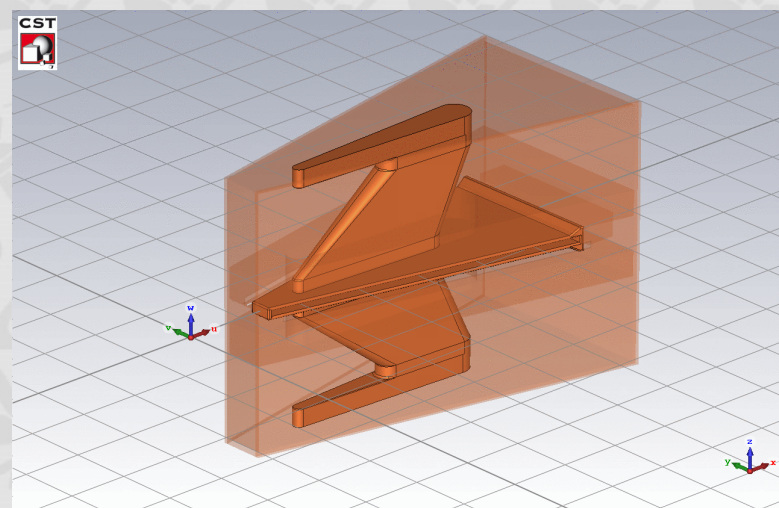
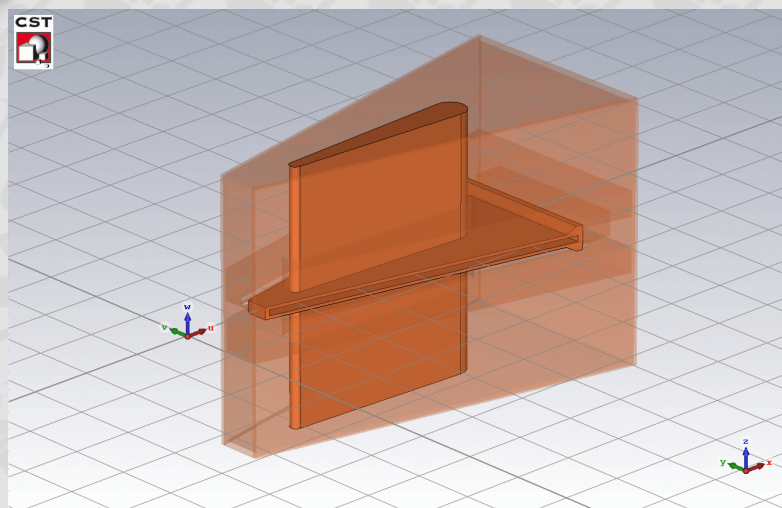
- ^{238}U until Nov 29 (if budget allows)
- No open call was made for scheduling request (except for AVF)

Now

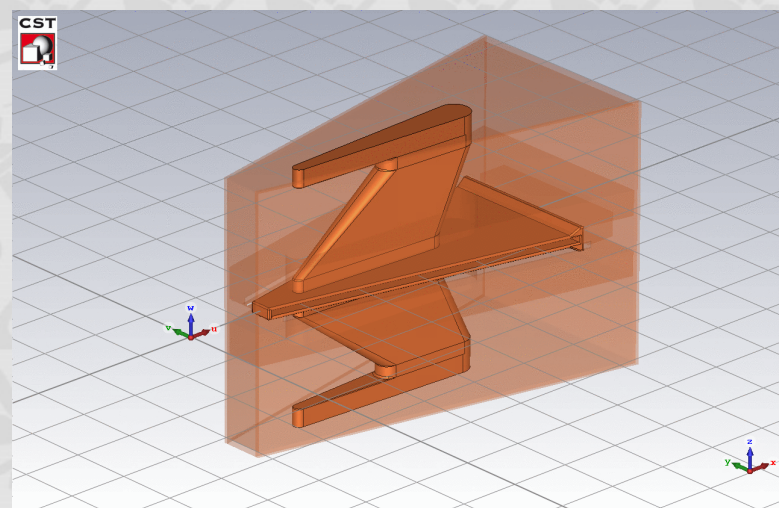
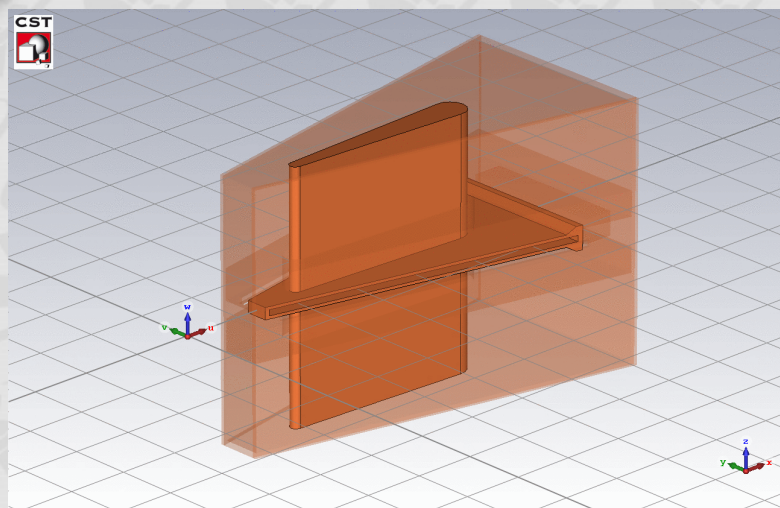


RRC RF update

picture by K.Yamada



picture by K.Yamada

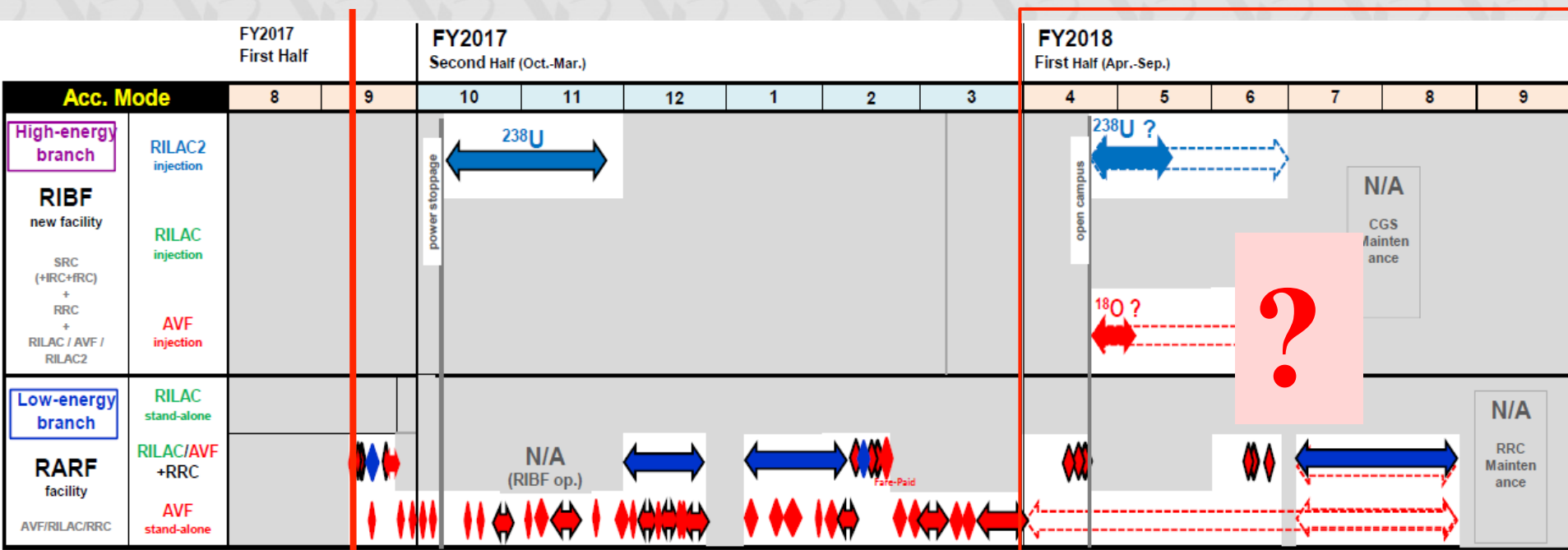


- ・ 冷却配管劣化 → 新品に
- ・ 周波数範囲20-45MHz → 16-38.7MHz
V加速 18.25 MHz が設計範囲内に
(ちなみにU加速も18.25 MHz)

Beam Time Operation FY2018?

- Nothing fixed but...
 - SRC-BigRIPS cannot get started from April 1
 - No ImPACT experiment in FY2018
 - SHE long run necessary

Now



Announcement (1/3)

All the spokespersons who had beam time allocation received the following email message.

*** 重要 ***

◆RIBFでの成果の発表、報告について、以下の2つのことを遵守ください。

1. 論文発表

実験成果を論文発表する際には、必ず以下の記述を本文中に入れてください。

「This experiment was performed at RI Beam Factory operated by RIKEN Nishina Center and CNS, University of Tokyo.」

2. APR報告

...

We found some recent papers that were published without this “1.” statement.

Announcement (2/3)

- NP-PAC

- Next: 18th held on December 7-9, 2017
- submission deadline: October 10, 2017
- 次回から

Proposalのページ数は10ページ以内(Appendixをつけてよい)
プレゼン時間厳守(PACコメントに対する書面での回答を受け付ける)

- 論文リスト

- 公開する
- 実験実施後4年以上経過して投稿論文なしのケースはPACで経緯説明を求める

Announcements (3/3)

- RIBF Symposium and Mini-Workshop

http://www.nishina.riken.go.jp/ulic/ulic_apply.html

[Symposium]

Objective: Exchange views among researchers in a relevant field.

Maximum amount of financial support: 500,000 JPY

Deadline: Application must be submitted in March and in September.

[Mini-Workshop]

Objective: To solve specific problem. Analysis meeting is acceptable.

Maximum amount of financial support: 150,000 JPY

Deadline: Applications will be accepted all the time being reviewed and evaluated immediately.

Backlog experiments

beam	# exp	days
Light ions	3	16
^{18}O	3	16
^{48}Ca	5	22
^{70}Zn	3	14.5
^{78}Kr	4	28
^{124}Xe	3	18
^{238}U	6	33.5
Total	27	148

FY2017 – 65 days of PAC-approved exps to be done

FY2016 – 79 days of PAC-approved exps done

FY2015 – 62 days of PAC-approved exps done

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RIBF10: International symposium on RI beam physics in the 21st century : 10th anniversary of RIBF

- Jointly organized by RIBF-UEC and RNC
- Topics
 - Recent progress in physics of unstable nuclei.
 - Novel technologies in RI-beam experiments.
 - Future activities at RIBF and other RI-beam facilities.
- Web-page:
<https://indico2.riken.jp/indico/conferenceDisplay.py?confId=2541>
- Dec. 4-5
 - Just before NP-PAC (Dec. 7-9)

- Facility: FRIB, FAIR, China, Korea
- Magic number
- Drip line
- Equation of state
- Astro-nuclear physics
- Super heavy
- 4 talks from theorist: structure, light/heavy ion reaction, astro-nuclear physics
- Thesis award session

RIBF Users Meeting 2017 (TBA)

- Satellite meeting of 10th anniversary symposium
 - Share the recent activities and preliminary results at RIBF
 - Complementary of RIBF 10th anniversary symposium
- Date
 - 12/04-12/06 (during symposium + alpha)
 - Invited talks, Poster session (contribution), and RIBF Thesis Award session
- Topics (candidates)
 - OEDO/ImPACT
 - CRIB
 - BRIKEN
 - Neuland
 - RIBF UEC Activity report

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4. Others

Request for IUPAP sponsorship (Type B)

NN2018

**13th International Conference on
Nucleus-Nucleus Collisions**

4–8th December 2018

Omiya, Japan

Tomohiro Uesaka

on behalf of

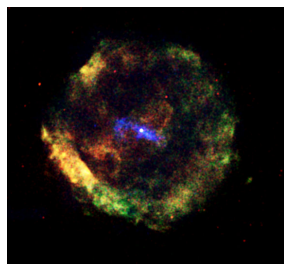
RIKEN Nishina Center for Accelerator-Based Science



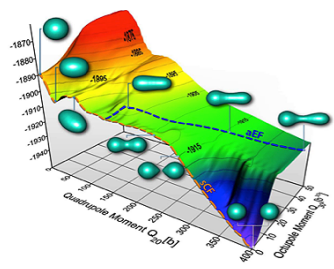
International Conference on Nucleus-Nucleus Collisions

- Organized every 3 years since the first meeting in 1982 at MSU
- 11th at Texas (USA), 12th at Catania (Italy), **13th at Omiya (Japan)**
- 350+ participants in the 12th
- 350—400 participants in the next meeting

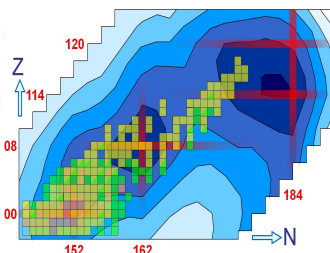
Nucleo-
synthesis



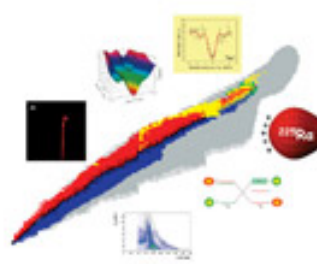
Fusion &
fission



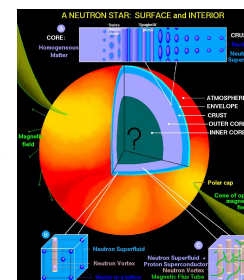
Superheavy
elements



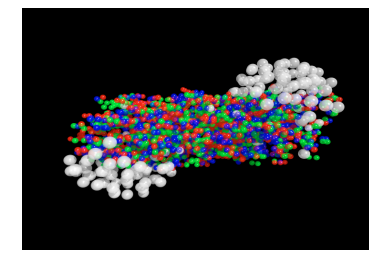
Unstable
nuclei



EoS and
strangeness



Quark-gluon
plasma



Low

Ultra high

+ Applications (Cancer therapy, nuclear transmutation,
RI for other fields. . . .)

Conferences, workshops in FY2018

5/13-19	Quark Matter 2018 @Venice
6/4-8	DREB2018 @松江
24-29	NIC2018 @ Gran Sasso
7/9-13	Few-Body 22 @ Caen
16-20	Electron scattering WS@ECT*, Trento
9/10-14	EXON2018 @ Petrozavodsk
16-21	EMIS2018 @ Geneva
10/ 23-27	HAWAII2018
9-11/2	COMEX6 @ South Africa
12/4- 8	NN2018 @Omiya