

# Minutes of the 50th Machine-Time Committee Meeting

Date and time: December 16, 2011; 13:30–14:35

Place: RIBF Bldg., Room 203

Attendees: Sakai<sup>a</sup> (Chair), En'yo<sup>a,†</sup>, Fukunishi<sup>a</sup>, Haba<sup>a,†</sup>, Hayashi<sup>a</sup> (in lieu of Abe), Inabe<sup>a</sup> (in lieu of Kubo), Kamigaito<sup>a</sup>, Kase<sup>a</sup>, Kubono<sup>b</sup>, Nishimura<sup>a,†</sup>, Otsu<sup>a</sup> (in lieu of Sakurai), Shimoura<sup>b</sup>, Suda<sup>c,†,‡</sup>, Ueno<sup>a</sup>, Uesaka<sup>a</sup>, Uwamino<sup>a</sup>, Wakasugi<sup>a</sup>

Absent: Abe<sup>a</sup>, Kubo<sup>a</sup>, Morita<sup>a</sup>, Motobayashi<sup>a,†</sup>, Sakurai<sup>a</sup>, Yoshida<sup>a,†</sup>

<sup>a</sup>RNC / <sup>b</sup>CNS / <sup>c</sup>RIBF-UEC / <sup>†</sup>Observer / <sup>‡</sup>TV Attendee  
(in random order)

## Reports

### 1. Change of the beam time schedule (Ueno)

It was approved by the RIKEN Headquarters that i) the operation of SRC-BigRIPS using the utility power of 8.5 MW has been extended from 9:00, December 12 to 9:00, December 19, and ii) the operation of RILAC-GARIS using the utility power 5.5 MW has been newly scheduled for January when the CGS system will be stopped. In response to these decisions, the beam-time (BT) schedule from December to January has been changed as follows:

| Experimental-Program-Number   | previous                    | changed                       |
|-------------------------------|-----------------------------|-------------------------------|
| <u>SRC</u>                    |                             |                               |
| NP0702-RIBF30-04 (Yoneda)     | Nov/ 9/ 9:00 – Nov/16/21:00 | → Nov/ 9/ 9:00 – Dec/ 3/21:00 |
| NP0702-RIBF31-04 (Aoi)        | Nov/17/21:00 – Nov/26/ 9:00 | → Dec/ 5/ 9:00 – Dec/ 8/ 9:00 |
| NP1012-RIBF63-01 (Sumikama)   | Nov/27/ 9:00 – Nov/29/ 9:00 | → <i>cancel</i>               |
| MS11-03 (Kubo)                | Dec/ 5/ 9:00 – Dec/11/ 9:00 | → Dec/12/ 9:00 – Dec/18/ 9:00 |
| NP0702-RIBF09-01 (Lewitowicz) | Dec/11/ 9:00 – Dec/12/ 9:00 | → Dec/18/ 9:00 – Dec/19/ 9:00 |
| <u>RILAC stand-alone</u>      |                             |                               |
| NP0702-LINAC12-13 (Morita)    | Nov/ 3/ 9:00 – Dec/ 1/ 9:00 | → Nov/ 3/ 9:00 – Dec/19/ 9:00 |
| ML1006-LINAC27-02 (Haba)      | Dec/23/ 9:00 – Dec/29/9:00  | → <i>cancel</i>               |
| NP0702-LINAC12-15 (Morita)    | N/A                         | Jan/15/ 9:00 – Jan/29/ 9:00   |
| <u>AVF stand-alone</u>        |                             |                               |
| MS11-14 (Sakamoto)            | <i>conditional</i>          | → Dec/20/ 9:00 – Dec/21/ 9:00 |
| RI0702-AVF04-29 (Haba)        | <i>conditional</i>          | → Dec/22/ 9:00 – Dec/24/ 9:00 |
| ML1101-AVF32-01 (Yokoyama)    | Dec/18/9:00 – Dec/19/21:00  | → Dec/26/ 9:00 – Dec/27/ 9:00 |
| <u>RRC</u>                    |                             |                               |
| NP0811-RRC65-03 (Georgiev)    | Dec/13/ 9:00 – Dec/20/ 9:00 | → Dec/20/9:00 – Dec/27/ 9:00  |
| NP0702-RRC01-27 (Wada)        | Dec/20/21:00 – Dec/22/ 9:00 | → Dec/28/9:00 – Dec/29/21:00  |
| NP0709-RRC39-03 (Nagatomo)    | Dec/25/ 9:00 – Dec/29/ 9:00 | → <i>cancel</i>               |

### 2. RIBF operation (Fukunishi)

- <sup>238</sup>U beam delivery

Following the recovery from the SRC trouble, a<sup>238</sup>U beam was delivered to the BT of NP0702-RIBF30-04 (Yoneda) at the maximum current  $I_{\max} \sim 3.5\text{--}4$  pA ( $I_{\text{ave}} \sim 2.5$  pA on average)

The beam delivery was, however, delayed not only due to the recovery process of SRC but also the accelerator conditioning required for the beam delivery.

- $^{124}\text{Xe}$  beam delivery

The beam transportation to BigRIPS was completed in the morning of December 12. As of December 16, 83 % of the requested BT is being supplied by the beam delivered at  $I_{\text{max}} \sim 13.5$  pA ( $I_{\text{ave}} \sim 8$  pA). Compared with  $^{238}\text{U}$ , the  $^{124}\text{Xe}$  beam was delivered smoothly. However, beam tuning must be continued due to large fluctuations in the current. Moreover, the charge-stripper foil should be changed often due to short endurance time. It was mentioned that in the current  $^{124}\text{Xe}$  beam series, a fixed-type foil has been used as the first-stage stripper at the RRC-A02 site.

### 3. Status of the Machine Study (Inabe)

The BT of MS11-03 (Kubo), a BT in the Machine Study category for proton-rich RI beam deliveries, started in the morning of December 12 since a  $^{124}\text{Xe}$  beam was transported to BigRIPS. The measurement of production cross sections and purity for a  $^{100}\text{Sn}$  secondary beam is ongoing. In addition to these measurements, the momentum distribution will be conducted for isotones and isotopes around  $^{100}\text{Sn}$ .

### 4. Status of the PAC meetings (Ueno)

- 10th NP-PAC: The meeting was held on December 9-10, 2011 as scheduled. A PAC report will be sent to both RNC & CNS directors soon.
- 9th ML-PAC & 3rd In-PAC: under preparation

## Topics discussed

### 1. Approval of the minutes of the previous meeting (Sakai)

### 2. FY2012 first half-year BT schedule (Sakai)

The outline of the BT schedule for FY2012 was discussed together with the construction plans and status/plan of beam developments which may affect the schedule. A BT plan of the RNC enterprise which will use AVF and RRC was also discussed. After deliberation, it was approved that the BigRIPS-related experiments using  $^{48}\text{Ca}$  and  $^{124}\text{Xe}$  primary beams (and  $^{70}\text{Zn}$ , if possible) are scheduled in the first half year of FY2012 following the  $^{18}\text{O}$  beam series that will start from March. The call for BT scheduling requests will be announced in January.

### 3. New MT Committee member (Sakai)

The EURICA (Euroball RIKEN Cluster Array) project will unfold over the period of year and half starting from April, 2012. In connection with the project, Nishimura, the EURICA Project Manager and Senior Research Scientist of the RNC Radioactive Isotope Physics Laboratory, was appointed by the MT Committee Chair Sakai as a new regular observer from January, as provided in the Article 5 of RIBF MT Committee Bylaws. Yamaguchi, the contact person of CRIB and Lecturer at CNS, the University of Tokyo, was also appointed as a new regular observer from January.

### 4. Next meetings

- The next MT Committee meeting will be held on Friday, January 20, 2011, at 13:30.