

**Nuclear Reaction Data Centre (JCPRG)**

**Minutes of Center Meeting in FY2018**

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1. Participants

Ichinkhorloo, Imai, Jagjit, Katayama, Kimura, Tada

2. Report

1) [Member]

- Kimura: head of the centre, JCPRG annual report committee
- Imai: chair of centre meeting, schedule and logging of EXFOR compilation, sending RIKEN news letter
- Jagjit: compilation of EXFOR
- Ichinkhorloo: compilation of EXFOR
- Tada: management of buntan list, trans log and update of RIKEN newsletter status, recording of centre meeting, compilation of EXFOR
- JCPRG annual report committee (Katayama, Noto, Kimura)
- Web page editor committee (not fixed)
- NRDF WG (Noto, Katayama, Kato, Chiba, Masayuki)
- Archive committee (Katayama, Noto, Kato, Chiba, Yoshida, Ashizawa)

2) [Regular Meeting]

- Compilation meeting: Every Friday
- Centre meeting: Middle or end of month

3) [ImPACT]

- Three meetings were held on Mar. 8, 14 and Apr. 13.

4) [RIKEN]

- One newsletter will be submitted.

5) [Compilation]

- Status

Transmitted	<ul style="list-style-type: none"><li>• Mar. 5: Prelim.e112(E2516, E2542, E2549, E2561, E2562)</li><li>• Mar. 10: Prelim.e113(E2526, E2528, E2529, E2530, E2531, E2532, E2533, E2536, E2537, E2538, E2548, E2551, E2554, E2563)</li><li>• Mar. 14: Prelim.e114(E2505, E2510, E2512, E2513, E2517, E2519)</li><li>• Mar. 28: Prelim.e115(E2344, E2351, E2381, E2383, E2386, E2387, E2390, E2393, E2568)</li></ul>
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6) [Other]

- Saito and Murata performed an experiment at RIKEN on March 12 and 13.
  - Y+alpha reaction
- JCPRG web page has to be updated: member list (Imai)
- Kimura received request for a report on JCPRG activities from AAPPS
  - Deadline of the manuscript is the end of April.

3 Annual Report

We are preparing the annual report for FY2016. (dead line: May 31<sup>st</sup>)

- Editor committee: Kimura, Ebata, Imai
- Preface: N. Iwamoto @ JAEA, (Kimura, fin)
- Overview: Editor (Kimura, fin)
- Organization: Editor (Kimura, fin)
- History: Editor (Kimura)
- Achievement: Editor (Imai)
- Compilation: Ichinkhorloo, Jagjit (fin)
- Evaluation: Jagjit, Ichinkhorloo (fin)
- NRDF: Katayama, Noto
- (IT(Editor): Aiganyam (revising))
- Experiment: Ukon, Saito (fin)
- Internship: Saito (fin)
- ImPACT: Ebata, Aikawa (fin)
- NRDC: Ebata (fin)
- AASPP2016: Aiganyam, Ichinkhorloo (revising)
- EXFOR WS@Vienna: Ebata (fin)
- EXFOR WS@India: Jagjit (fin)
- ND2016: Ebata(fin)

Deadline of the all manuscript is March 9.

4 Event Schedule

2018		
May 1-4	NRDC 2018	India
May 13-18	Rad. Chem. 18	Czech Republic
June 4-8	DREB 2018	Matsue, Japan
July 9-13	Few body 2018	Caen, France
Sep. 24-28	CNR* 2018	Berkley, USA

Priority: 1) Int. Conf. w/ Proc., 2) Int. Conf. w/o Proc. and 3) other Confs.

	Int. Conf. (w/ Proc.)	Int. Conf. (w/o Proc.)	Dom. Conf.
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Fujimoto			
Ichinkhorloo			
Jagjit		NRDC 2018, DREB 2018	
Kato			
Kimura			
Saito	Rad. Chem. 18		

## 5 Next Meeting

17:00, May 28, 2018	2 <sup>nd</sup> Centre Meeting	JCPRG Seminar Room
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1. Participants

Ichinkhorloo, Imai, Jagjit, Kimura, Tada

2. Report

1) [Publication]

- Three papers by former JCPRG members were published.
  - M. Aikawa, M. Saito, **S. Ebata**, et al., Nucl. Instrum. Methods B 427, 91-94, 2018.
  - M. Aikawa, M. Saito, **N. Ukon**, et al., Nucl. Instrum. Methods B 426, 18-21, 2018.
  - **Naoyuki Ukon**, et al., Nucl. Instrum. Methods B 426, 13-17, 2018.

2) [Compilation]

- Status

Transmitted	<ul style="list-style-type: none"><li>• None</li></ul>
NRDF Master Update	<ul style="list-style-type: none"><li>• May 11: D1994, D2046, D2054, D2055</li><li>• May 24: D2505, D2510, D2512, D2513, D2516, D2517</li></ul>
EXFOR Master Update	<ul style="list-style-type: none"><li>• May 28: 1438, 3182, 3183, 4177, 4178, A088, C172, C173, D113, D114, D115, E112, E113, E114, E115, F067, G040, L035, M094, M095</li></ul>

3) [ImPACT]

- One meeting was held on May 10, 2018.
  - Aikawa attended in the meeting.
- The next meeting will be held on Jun. 14, 2018.
- The brief report on FY2017 was prepared and submitted.

4) [RIKEN]

- Our reports submitted to RIKEN-APR were proofread, and revised according to the comments.

5) [Other]

- Google calendar managed by webmaster@JCPRG (Imai and Tada) is prepared.
  - URL: <https://calendar.google.com/calendar/embed?src=webmaster%40jcprg.org&ctz=Asia%2FTokyo>
  - iCal: <https://calendar.google.com/calendar/ical/webmaster%40jcprg.org/public/basic.ics>

6) [NRDC 2018]

- [Jagjit Singh](#) has attended on behalf of JCPRG.
- Actions and suggestions were proposed for JCPRG in NRDC-2018.
  - The number of old articles not transmitted yet in EXFOR for JCPRG is 154. Otsuka-san suggested that the part of them can be taken by Tada during his visit to IAEA in this year. For stats see the report by Otsuka-san at link below
  - [https://www-nds.iaea.org/nrdc/nrdc\\_2018/working/wp2018-02.pdf](https://www-nds.iaea.org/nrdc/nrdc_2018/working/wp2018-02.pdf)
  - Ichinkhorloo will check and report the status.
- There was suggestion for writing article on GSYS (Digitizer) and HENDEL (Editor) for ND2019 conference. We can contribute to the main proposed EXFOR article which is under preparation. Kimura will see this action.
- Very urgent and urgent actions should be finished before next meeting.
  - [https://www-nds.iaea.org/nrdc/nrdc\\_2018/working/wp2018-15.pdf](https://www-nds.iaea.org/nrdc/nrdc_2018/working/wp2018-15.pdf)
  - [https://www-nds.iaea.org/nrdc/nrdc\\_2018/working/wp2018-22.pdf](https://www-nds.iaea.org/nrdc/nrdc_2018/working/wp2018-22.pdf)
- Jagjit will check and communicate with Otsuka-san.

### 3. Annual Report

- We are preparing the annual report for FY2016. (dead line: May 31<sup>st</sup>)
  - Editor committee: Kimura, Ebata, Imai
  - Preface: N. Iwamoto @ JAEA, (Kimura, fin)
  - Overview: Editor (Kimura, fin)
  - Organization: Editor (Kimura, fin)
  - History: Editor (Kimura)
  - Achievement: Editor (Imai)
  - Compilation: Ichinkhorloo, Jagjit (fin)
  - Evaluation: Jagjit, Ichinkhorloo (fin)
  - NRDF: Katayama, Noto
  - (IT(Editor): Aiganyam (~~revising~~revising))
  - Experiment: Ukon, Saito (fin)
  - Internship: Saito (fin)
  - ImPACT: Ebata, Aikawa (fin)
  - NRDC: Ebata (fin)
  - AASPP2016: Aiganyam, Ichinkhorloo (revising)
  - EXFOR WS@Vienna: Ebata (fin)
  - EXFOR WS@India: Jagjit (fin)
  - ND2016: Ebata(fin)
- Deadline of the all manuscript is March 9.

### 4. Event Schedule

2018		
June 4-8	DREB 2018	Matsue, Japan
July 9-13	Few body 2018	Caen, France
Sep. 24-28	CNR* 2018	Berkley, USA
Sep. 5-7	AESJ 2018	Okayama, Japan
Oct. 15-26	Joint ICTP-IAEA Workshop on Nuclear Structure and Decay Data: Theory, Experiment and Evaluation	Trieste, Italy
Oct. 22-25	EXFOR compilation workshop	IAEA, Vienna
Nov. 29-30	Symposium on Nuclear Data	TITech, Japan
Dec. 4-8	NN2018	Saitama, Japan

Priority: 1) Int. Conf. w/ Proc., 2) Int. Conf. w/o Proc. and 3) other Confs.

	Int. Conf. (w/ Proc.)	Int. Conf. (w/o Proc.)	Dom. Conf.
Fujimoto			
Ichinkhorloo			
Jagjit		DREB 2018	
Kato			
Kimura			
Saito			

## 5 Next Meeting

17:00, June 29, 2018	3 <sup>rd</sup> Centre Meeting	JCPRG Seminar Room
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1. Participants

Ichinkhorloo, Jagjit, Kimura, Tada, Katayama, Noto

2. Report

1) [NRDF]

- The following files were updated and included in the database.
  - [Jun. 8] D2519, D2526, D2528, D2529, D2530, D2531, D2532, D2533
  - [Jun. 29] D2536, D2537, D2538, D2539, D2542, D2548, D2549, D2551, D2554

2) [ImPACT]

- One meeting was held on Jun. 14, 2018.
  - Aikawa reported the progress of our group.
- The next meeting will be held on Jul. 5, 2018.

3) [Annual Report]

- We are preparing the annual report for FY2016. (dead line: May 31<sup>st</sup>)
  - Editor committee: Kimura, Ebata, Imai
  - Preface: N. Iwamoto @ JAEA, (Kimura, fin)
  - Overview: Editor (Kimura, fin)
  - Organization: Editor (Kimura, fin)
  - History: Editor (Kimura)
  - Achievement: Editor (Imai)
  - Compilation: Ichinkhorloo, Jagjit (fin)
  - Evaluation: Jagjit, Ichinkhorloo (fin)
  - NRDF: Katayama (fin)
  - (IT(Editor): Aiganyam (revising))
  - Experiment: Ukon, Saito (fin)
  - Internship: Saito (fin)
  - ImPACT: Ebata, Aikawa (fin)
  - NRDC: Ebata (fin)
  - AASPP2016: Aiganyam, Ichinkhorloo (fin)
  - EXFOR WS@Vienna: Ebata (fin)
  - EXFOR WS@India: Jagjit (fin)
  - ND2016: Ebata(fin)
- Deadline of the all manuscript is March 9.



#### 4) [Other]

- The 9th Asian Nuclear Reaction Database Development Workshop will be held in Gyeong-ju, Korea from Nov. 13 to 15, 2018.
  - Abstract deadline is Sept. 14.
  - Registration deadline is Sept. 28.
- Security updated on the JCPRG server
  - SSH connection is restricted only by a public key.
- Prof. Ebata (TiTech) asks for an approval to host the website of MFG theoretical reaction database at the JCPRG server.
  - The most part of the work has been done during a member of JCPRG.

### 3 Event Schedule

2018		
July 9-13	Few body 2018	Caen, France
Sep. 24-28	CNR* 2018	Berkley, USA
Sep. 5-7	AESJ 2018	Okayama, Japan
Oct. 15-26	Joint ICTP-IAEA Workshop on Nuclear Structure and Decay Data: Theory, Experiment and Evaluation	Trieste, Italy
Oct. 22-25	EXFOR compilation workshop	IAEA, Vienna
Nov. 13-15	AASPP	Gyeongju, Korean
Nov. 29-30	Symposium on Nuclear Data	TiTech, Japan
Dec. 4-8	NN2018	Saitama, Japan
Mar. 4-7	Japan forum of nuclear astrophysics	Hokkaido Univ., Japan

Priority: 1) Int. Conf. w/ Proc., 2) Int. Conf. w/o Proc. and 3) other Confs.

	Int. Conf. (w/ Proc.)	Int. Conf. (w/o Proc.)	Dom. Conf.
Fujimoto			
Ichinkhorloo			
Jagjit		DREB 2018	
Kato			
Kimura			
Saito			

### 4 Next Meeting

17:00, July 27, 2018	4 <sup>th</sup> Centre Meeting	JCPRG Seminar Room
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## 1. Participants

Ichinkhorloo, Imai, Jagjit, Kimura, Tada, Katayama, Noto, Kato, Hirabayashi

## 2. Report

## 1) [Compilation]

- Status

Transmitted	<ul style="list-style-type: none"> <li>• None</li> </ul>
NRDF Master Update	<ul style="list-style-type: none"> <li>• Jul 13: D2561, D2562, D2563, D2568</li> <li>• Jul 27: D0546, D1286, D1358, D1588, D1658, D1737</li> </ul>
EXFOR Master Update	<ul style="list-style-type: none"> <li>• May 28: 1439, 3184, 3185, 4179, B027, B028, D116, D117, G041, S024, V036</li> </ul>

## 2) [EXFOR]

- Dictionaries used in the JCPRG server were updated according to the transmission of Dictionary 9118.
  - HENDEL, CHEX, Search system

## 3) [ImPACT]

- One meeting was held on Jul. 5, 2018.
  - Aikawa reported our activity in the meeting.

## 4) [Annual Report]

- We are preparing the annual report for FY2016. (dead line: May 31<sup>st</sup>)
  - Editor committee: Kimura, Ebata, Imai
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  - Overview: Editor (Kimura, fin)
  - Organization: Editor (Kimura, fin)
  - History: Editor (Kimura)
  - Achievement: Editor (Imai)
  - Compilation: Ichinkhorloo, Jagjit (fin)
  - Evaluation: Jagjit, Ichinkhorloo (fin)
  - NRDF: Katayama (fin)
  - (IT(Editor): Aigany (revising))
  - Experiment: Ukon, Saito (fin)
  - Internship: Saito (fin)
  - ImPACT: Ebata, Aikawa (fin)

- NRDC: Ebata (fin)
- AASPP2016: Aiganyam, Ichinkhorloo (fin)
- EXFOR WS@Vienna: Ebata (fin)
- EXFOR WS@India: Jagjit (fin)
- ND2016: Ebata(fin)
- Deadline of the all manuscript is March 9.

5) [Other]

- JCPRG servers will be shutdown and replaced.
  - Shutdown: from 17:00, Sep. 7 to 13:00, Sep. 10.
  - Replacement: Dec. 2018
- The 9th Asian Nuclear Reaction Database Development Workshop will be held in Gyeong-ju, Korea from Nov. 13 to 15, 2018.
  - Abstract deadline is Sept. 14.
  - Registration deadline is Sept. 28.
- Archive committee is accumulating historical documents in TNPL to make the database (for example: documents of research activities by Tanaka, M.Chiba and Akaishi).
  - Members are Kato, Noto, Chiba, Katayama, Yoshida and Ashizawa.
  - Next meetings (July 31 and August 7)
- Introduction of JCPRG was submitted to AAPPS bulletin.
- The schedule of Japan forum of nuclear astrophysics is March 6-8, 2019.
  - Presenter will be determined.

3 Event Schedule

2018		
Sep. 5-7	AESJ 2018	Okayama, Japan
Sep. 24-28	CNR* 2018	Berkley, USA
Oct. 15-26	Joint ICTP-IAEA Workshop on Nuclear Structure and Decay Data: Theory, Experiment and Evaluation	Trieste, Italy
Oct. 22-25	EXFOR compilation workshop	IAEA, Vienna
Nov. 13-15	AASPP	Gyeongju, Korean
Nov. 29-30	Symposium on Nuclear Data	TITech, Japan
Dec. 4-8	NN2018	Saitama, Japan
Mar. 6-8	Japan forum of nuclear astrophysics	Hokkaido Univ., Japan

Priority: 1) Int. Conf. w/ Proc., 2) Int. Conf. w/o Proc. and 3) other Confs.

	Int. Conf. (w/ Proc.)	Int. Conf. (w/o Proc.)	Dom. Conf.
Fujimoto			

Ichinkhorloo			
Jagjit			
Kato			
Kimura			
Saito			
Tada			

#### 4 Next Meeting

17:00, Aug. 31, 2018	5 <sup>th</sup> Centre Meeting	JCPRG Seminar Room
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1. Chairperson

Kimura

2. Participants

Hirabayashi, Ichinkhorloo, Jagjit, Kato, Kimura, Tada

3. Report

1) [Compilation]

- Status

Transmitted	• None
NRDF Master Update	• None
EXFOR Master Update	• Aug. 30: 1440, 2266, C174, M096

2) [ImPACT]

- The meeting on Aug. 9, 2018 was cancelled due to a typhoon.
- The next and last meetings will be held on Sep. 13 and 25, 2018.
  - Aikawa will report our activity in the meeting on Sep. 25.

3) [RIKEN]

- None

4) [Annual Report]

- We are preparing the annual report for FY2016. (dead line: May 31<sup>st</sup>)
  - Editor committee: Kimura, Ebata, Imai
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  - Overview: Editor (Kimura, fin)
  - Organization: Editor (Kimura, fin)
  - History: Editor (Kimura)
  - Achievement: Editor (Imai)
  - Compilation: Ichinkhorloo, Jagjit (fin)
  - Evaluation: Jagjit, Ichinkhorloo (fin)
  - NRDF: Katayama (fin)
  - (IT(Editor): Aigany (revising))
  - Experiment: Ukon, Saito (fin)
  - Internship: Saito (fin)

- ImPACT: Ebata, Aikawa (fin)
- NRDC: Ebata (fin)
- AASPP2016: Aiganyam, Ichinkhorloo (fin)
- EXFOR WS@Vienna: Ebata (fin)
- EXFOR WS@India: Jagjit (fin)
- ND2016: Ebata(fin)
- Deadline of the all manuscript is Mar. 9.

5) [Other]

- JCPRG servers will be shutdown and replaced.
  - Shutdown: from 17:00, Sep. 7 to 13:00, Sep. 10.
  - Replacement: Dec. 2018
  - Effect of thunder: Aug. 22
- The 9th Asian Nuclear Reaction Database Development Workshop will be held in Gyeong-ju, Korea from Nov. 12 to 15, 2018.
  - Abstract deadline is Sep. 14.
  - Registration deadline is Sep. 28.
  - Participants will be determined; Aikawa(14-15), Ichinkhorloo or Jagjit
- The schedule of the Japan forum of nuclear astrophysics in Hokkaido Univ. is Mar. 6-8, 2019.
  - Presenters will be determined.
- Dr. Ukon will visit us and discuss collaborative research on Sep. 10-11, 2018.
- Dr. Takacs will visit us from Jan. 15 to Feb. 18, 2019 under JSPS Invitational Fellowships for Research in Japan.
- Based on the collaboration with ATOMKI and RIKEN, we applied for JSPS Bilateral Programs.

### 3 Event Schedule

2018			
Sep. 5-7	AESJ 2018	Okayama, Japan	Aikawa
Sep. 24-28	CNR* 2018	Berkley, USA	
Oct. 15-26	Joint ICTP-IAEA Workshop on Nuclear Structure and Decay Data: Theory, Experiment and Evaluation	Trieste, Italy	
Oct. 22-25	EXFOR compilation workshop	IAEA, Vienna	Tada
Nov. 13-15	AASPP	Gyeongju, Korean	Aikawa,Jagjit or Ichinkhorloo
Nov. 29-30	Symposium on Nuclear Data	TITech, Japan	Aikawa and Kimura

Dec. 4-8	NN2018	Saitama, Japan	Jagjit and Ichinkhorloo
2019			
Mar. 6-8	Japan forum of nuclear astrophysics	Hokkaido Univ., Japan	

Priority: 1) Int. Conf. w/ Proc., 2) Int. Conf. w/o Proc. and 3) other Confs.

	Int. Conf. (w/ Proc.)	Int. Conf. (w/o Proc.)	Dom. Conf.
Fujimoto			
Ichinkhorloo			
Jagjit			
Kato			
Kimura			
Saito			
Tada			

#### 4 Next Meeting

17:00, Oct. 1	6 <sup>th</sup> Centre Meeting	JCPRG Seminar Room
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## 1. Chairperson

Tada

## 2. Participants

Ichinkhorloo, Imai, Jagjit, Kato, Kimura, Noto, Tada

## 3. Report

## 1) [Compilation]

## • Status

Transmitted	• None
NRDF Master Update	• Sep. 20: D0514, D0858
EXFOR Master Update	• Sep. 28: 1441, 2267, A089, A090, C175, L036

## 2) [ImPACT]

- A meeting was held on Sep. 25, 2018.
  - Aikawa reported the ImPACT activity of our group.
- Webpages for ImPACT achievements will be opened on JCPRG website.
  - <http://www.jcprg.org/impact/fragdata/>
  - <http://www.jcprg.org/impact/ndata/>

## 3) [Experiment]

- Three papers were published, in press and submitted.
  - F. Ditrói et al., “Investigation of alpha particle induced reactions on natural silver in the 40-50 MeV energy range”, Nucl. Instrum. Methods B 436 (2018) 119.
  - M. Aikawa et al., “Activation cross sections of deuteron-induced reactions on niobium up to 24 MeV”, Nucl. Instrum. Methods B, in press.
  - T. Murata et al., “Production cross sections of Mo, Nb and Zr radioisotopes from  $\alpha$ -induced reaction on  $^{nat}\text{Zr}$ ”, Appl. Radiat. Isot., submitted.
- Two experiments were performed at RIKEN in Sep.-Oct. 2018.
  - 24-MeV deuteron-induced reactions on yttrium (Sakaguchi, Aikawa)
  - 50-MeV alpha-induced reactions on europium (Saito, Sakaguchi, Aikawa)

## 4) [RIKEN]

- None

## 5) [Annual Report]



- We are preparing the annual report for FY2016. (dead line: May 31<sup>st</sup>)
  - Editor committee: Kimura, Ebata, Imai
  - Preface: N. Iwamoto @ JAEA, (Kimura, fin)
  - Overview: Editor (Kimura, fin)
  - Organization: Editor (Kimura, fin)
  - History: Editor (Kimura)
  - Achievement: Editor (Imai)
  - Compilation: Ichinkhorloo, Jagjit (fin)
  - Evaluation: Jagjit, Ichinkhorloo (fin)
  - NRDF: Katayama (fin)
  - (IT(Editor): Aiganyam (revising))
  - Experiment: Ukon, Saito (fin)
  - Internship: Saito (fin)
  - ImPACT: Ebata, Aikawa (fin)
  - NRDC: Ebata (fin)
  - AASPP2016: Aiganyam, Ichinkhorloo (fin)
  - EXFOR WS@Vienna: Ebata (fin)
  - EXFOR WS@India: Jagjit (fin)
  - ND2016: Ebata(fin)
- Deadline of the all manuscript is Mar. 9.

6) [Misc]

- Dr. Ukon visited Hokkaido U. on Sep. 10-11, 2018 and discussed collaborative research.
- The JCPRG servers were unexpectedly shutdown due to the earthquake on Sep. 6.
  - The servers were rebooted on Sep. 10 after a scheduled maintenance in addition to the disaster.
- The next AASPP Workshop will be held on Nov. 12-15, 2018.
  - Abstract submission deadline: Sep. 28, 2018
  - Aikawa applied for a talk to introduce the experimental research activity of Medical Applied Basic Physics, Biomedical Science and Engineering, Hokkaido University.
  - Ichinkhorloo will talk about JCPRG activities.
- The next Symposium on Nuclear Data will be held at Tokyo Inst. of Tech. on Nov. 29-30, 2018.
  - Abstract submission deadline: Oct. 24, 2018
  - Aikawa will attend and talk in Poster session.
  - Kimura will attend.
  - Ichinkhorloo and Jagjit will prepare the posters about their own researches.
- The next International Conference on Nuclear Data for Science and Technology (ND2019) will be held at Beijing, China on May 19-24, 2019.
  - Abstract submission deadline: Nov. 1, 2018

- Kimura will attend
- The schedule of the Japan forum of nuclear astrophysics in Hokkaido Univ. is Mar. 6-8, 2019.
  - Presenter will be determined.

### 3 Event Schedule

2018			
Oct. 22-25	EXFOR compilation workshop	IAEA, Vienna	Tada
Nov. 12-15	AASPP	Gyeongju, Korean	Aikawa and Ichinkhorloo
Nov. 29-30	Symposium on Nuclear Data	TITech, Japan	Aikawa and Kimura
Dec. 4-8	NN2018	Saitama, Japan	Jagjit and Ichinkhorloo
2019			
Mar. 6-8	Japan forum of nuclear astrophysics	Hokkaido Univ., Japan	Kimura
May 19-24	ND2019	Beijing, China	Kimura

Priority: 1) Int. Conf. w/ Proc., 2) Int. Conf. w/o Proc. and 3) other Confs.

	Int. Conf. (w/ Proc.)	Int. Conf. (w/o Proc.)	Dom. Conf.
Fujimoto			
Ichinkhorloo			
Jagjit			
Kato			
Kimura			
Saito			
Tada			

### 4 Next Meeting

17:00, Oct. 31	7 <sup>th</sup> Centre Meeting	JCPRG Seminar Room
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1. Chairperson

Imai

2. Participants

Ichinkhorloo, Imai, Jagjit, Katayama, Kato, Noto

3. Report

[EXFOR]

- EXFOR master files in the JCPRG server were updated.
  - [Oct. 29] 1442, C176, E116, F068, M097, O064
- Tada attended the EXFOR workshop held at IAEA, Vienna on Oct. 22-25, 2018.

[NRDF]

- NRDF master files were updated.
  - [Oct. 19] D0377, D0495, D0496
  - [Oct. 31] D0366, D0356

[ImPACT]

- The final report must be prepared by Nov. 22, 2018.

[RIKEN]

- RIKEN Progress Report Vol. 51 was published. Seven reports from JCPRG were included.
  - N. Ukon et al., Activation cross sections of alpha-induced reactions on natural tungsten for  $^{186}\text{Re}$  and  $^{188}\text{Re}$  production
  - M. Saito et al., Production cross sections of  $^{177\text{g}}\text{Lu}$  in  $\alpha$ -induced reactions on  $^{\text{nat}}\text{Yb}$
  - M. Saito et al., Production cross sections of  $^{169}\text{Yb}$  and Tm isotopes in deuteron-induced reactions on  $^{169}\text{Tm}$
  - M. Aikawa et al., Activation cross sections of  $\alpha$ -induced reactions on  $^{\text{nat}}\text{In}$  for  $^{117\text{m}}\text{Sn}$  production
  - S. Ebata et al., Monte-Carlo Simulation of Transmutation based on Experimental Nuclear Data
  - D. Ichinkhorloo et al., EXFOR Compilation of RIBF data in 2017
  - T. Murata et al., Cross section measurement to produce  $^{99}\text{Mo}$  by alpha-induced reactions on natural Zr

[Experiment]

- The following papers for experiments were submitted/reviewed/published.
  - M. Aikawa et al., "Activation cross sections of deuteron-induced reactions on niobium up to 24 MeV", Nucl. Instrum. Methods B, 436, 217, 2018.

- T. Murata et al., “Production cross sections of Mo, Nb and Zr radioisotopes from alpha-induced reaction on  $^{nat}\text{Zr}$ ”, Appl. Radiat. Isot., reviewed and to be revised.
- M. Aikawa et al., “Activation cross sections of alpha-particle induced nuclear reactions on natural palladium”, Nucl. Instrum. Methods B, submitted.

[Conference/Symposium]

- The next AASPP Workshop will be held on Nov. 12-15, 2018.
  - Ichinkhorloo et al., “Activity of Nuclear Reaction Data in JCPRG”
  - Ichinkhorloo et al., “Analysis of the  $^{16}\text{O}(\text{p,pn})^{15}\text{O}$  reaction using the CDCC method”
  - Aikawa et al., “Systematic study on charged-particle-induced reactions for medical radioisotope production”
- The next International Conference on Nuclear Data for Science and Technology (ND2019) will be held at Beijing, China on May 19-24, 2019.
  - Abstract submission deadline: Nov. 20, 2018 (extended)
- The next Symposium on Nuclear Data will be held at Tokyo Inst. of Tech. on Nov. 29-30, 2018.
  - Abstract submission deadline: Oct. 31, 2018 (extended)
  - Aikawa submitted one abstract

[Others]

- The JCPRG servers were replaced on Oct. 17, 2018.

### 3 Event Schedule

2018			
Nov. 12-15	AASPP	Gyeongju, Korea	Aikawa and Ichinkhorloo
Nov. 29-30	Symposium on Nuclear Data	TITech, Japan	Aikawa and Kimura
Dec. 4-8	NN2018	Saitama, Japan	Jagjit and Ichinkhorloo
2019			
Mar. 6-8	Japan forum of nuclear astrophysics	Hokkaido Univ., Japan	Kimura
May 19-24	ND2019	Beijing, China	Kimura

Priority: 1) Int. Conf. w/ Proc., 2) Int. Conf. w/o Proc. and 3) other Confs.

	Int. Conf. (w/ Proc.)	Int. Conf. (w/o Proc.)	Dom. Conf.
Fujimoto			
Ichinkhorloo	AASPP, NN2018		
Jagjit	NN2018		

Kato			
Kimura	Nuclear Data		
Saito			
Tada			

#### 4 Next Meeting

17:00, Nov. 26	8 <sup>th</sup> Centre Meeting	JCPRG Seminar Room
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1. Chairperson

Imai

2. Participants

Hirabayashi, Imai, Jagjit, Kato, Kimura

3. Report

1) [EXFOR]

- EXFOR master file in the JCPRG server was updated.
  - [Nov. 25] 1443

2) [NRDF]

- No meetings were held.

3) [ImPACT]

- The final report was submitted.

4) [Experiment]

- The following paper was accepted.
  - T. Murata et al., “Production cross sections of Mo, Nb and Zr radioisotopes from alpha-induced reaction on <sup>nat</sup>Zr”, Appl. Radiat. Isot., accepted.

5) [Conference/Symposium]

- The 9th AASPP Workshop was held at Gyeongju, Korea on Nov. 12-15, 2018.
  - Ichinkhorloo and Aikawa attended the workshop
  - Three talks were presented.
    - Ichinkhorloo et al., “Activity of Nuclear Reaction Data in JCPRG”
    - Ichinkhorloo et al., “Analysis of the <sup>16</sup>O(p,pn)<sup>15</sup>O reaction using the CDCC method”
    - Aikawa et al., “Systematic study on charged-particle-induced reactions for medical radioisotope production”
  - The next workshop will be held in Almaty, Kazakhstan.
- The next International Conference on Nuclear Data for Science and Technology (ND2019) will be held at Beijing, China on May 19-24, 2019.
  - The deadline of abstract submission passed.
- The next Symposium on Nuclear Data will be held at Tokyo Inst. of Tech. on Nov. 29-30, 2018.
  - Two posters will be presented.

- Kimura et al., “Cluster resonances probed by nuclear responses”
  - Sakaguchi et al., “Production cross sections of  $^{89}\text{Zr}$  by deuteron-induced reactions on  $^{89}\text{Y}$ ”
  - A workshop of Japan Forum of Nuclear Astrophysics will be held at Hokkaido University on Mar. 6-9, 2019.
    - Abstract deadline: Nov. 30, 2018
    - Ichinkhorloo, Jagjit, Kimura will attend and submit abstract
- 6) [Others]
- Prof. Abishev (Al-Farabi Kazakh National University) visited Hokkaido University.
    - A seminar “Magnetic knife for medical purposes” was held on Nov. 22, 2018.
  - Prof. Takibayev (Al-Farabi Kazakh National University) will visit Hokkaido University on Dec. 8-14, 2018.
    - He will use JCPRG lab.
  - Hokkaido Theoretical Nuclear Physics Local School was held on Nov. 19-21, 2018.
    - Three talks by Saito, Murata and Aikawa were presented.

#### 4. Annual Report

##### 1) JCPRG annual report 2016,2017,2018

- Printing and distribution: A few will be printed to distribute to IAEA, Dean of Science Faculty in Hokkaido University.
  - Check the distribution list to be renewed.
- 2017 and 2018 will be unified.

##### 2) RIKEN annual report

- The submission schedule will be announced
  - Jagjit will be the corresponding author of “EXFOR Compilation of RIBF data in 2018”
  - Some experiments performed at RIKEN

#### 5. Event Schedule

2018			
Nov. 29-30	Symposium on Nuclear Data	TITech, Japan	Aikawa and Kimura
Dec. 4-8	NN2018	Saitama, Japan	Jagjit and Ichinkhorloo
2019			
Mar. 6-8	Japan forum of nuclear astrophysics	Hokkaido Univ.,	Kimura

		Japan	
May 19-24	ND2019	Beijing, China	Kimura

Priority: 1) Int. Conf. w/ Proc., 2) Int. Conf. w/o Proc. and 3) other Confs.

	Int. Conf. (w/ Proc.)	Int. Conf. (w/o Proc.)	Dom. Conf.
Fujimoto			
Ichinkhorloo	NN2018		
Jagjit	NN2018		
Kato			
Kimura	Nuclear Data at TITech		
Saito			
Tada			

#### 6. Next Meeting

17:00, Dec. 21	9 <sup>th</sup> Centre Meeting	JCPRG Seminar Room
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1. Chairperson Kimura

Participants Katayama, Noto, Chiba, Kimura, Jagjit, Saito, Ichinkhorloo

2. Report

1) [EXFOR]

- EXFOR master files in the JCPRG server were updated.
  - [Dec. 18] 3186, D118, E117, F069, G042, M098

2) [NRDF]

- Two meetings were held on Nov. 30 and Dec. 21, 2018.
  - [Nov. 30] D2557, D2574, D2575, D2576, D2578
  - [Dec. 21] D2524, D2535, D2545, D2580, D2581

3) [Annual Report]

- The webpage was prepared.
  - <http://www.jcprg.org/annual/2016/>
- Annual report will be printed and sent in the next week.

4) [ImPACT]

- Our activity on ImPACT will be reported by Aikawa in the next AESJ meeting in Mar.

5) [Experiment]

- The following paper was published.
  - T. Murata et al., “Production cross sections of Mo, Nb and Zr radioisotopes from  $\alpha$ -induced reaction on  $^{nat}\text{Zr}$ ”, Appl. Radiat. Isot., 144 (2019) 47.
- Several experiments are planned to be performed at RIKEN in Feb. and Mar.
  - $^{64}\text{Ni}+a$ ,  $\text{Tm}+a$ ,  $\text{W}+a$
  - $\text{Tb}+d$ ,  $\text{Zn}+d$
- Saito will have a presentation in the next AESJ meeting in Mar.

6) [Conference/Symposium]

- The proceedings on the 9th AASPP Workshop held at Gyeongju, Korea on Nov. 12-15, 2018 were submitted.
  - Ichinkhorloo et al., “Activity of Nuclear Reaction Data in JCPRG”
  - Aikawa et al., “Systematic study on charged-particle-induced reactions for medical radioisotope production”
- The 2018 Symposium on Nuclear Data was held at Tokyo Inst. of Tech. on Nov. 29-30, 2018.

- Two posters were presented.
  - Kimura et al., “Cluster resonances probed by nuclear responses”
  - Sakaguchi et al., “Production cross sections of  $^{89}\text{Zr}$  by deuteron-induced reactions on  $^{89}\text{Y}$ ”
- The deadline of the proceedings is Jan. 11, 2019

7) [Others]

- Prof. Takibayev (Al-Farabi Kazakh National University) visited Hokkaido University on Dec. 8-14, 2018.
- Assist. Prof. Ukon (Fukushima Medical University) visited Hokkaido University on Dec. 20-21, 2018.
- RIKEN annual report, deadline 25<sup>th</sup> Jan.
- Jagjit will be the corresponding author of “EXFOR Compilation of RIBF data in 2018”
- Some experiments performed at RIKEN

3. Event Schedule

2018			
Mar. 6-8	Japan forum of nuclear astrophysics	Hokkaido Univ, Japan	Kimura
Apr. 9-12	NRDC Meeting	Vienna	Kimura, Tada
May 19-24	ND2019	Beijing, China	
Jun. 24-28	AASPP	Almaty	

Priority: 1) Int. Conf. w/ Proc., 2) Int. Conf. w/o Proc. and 3) other Confs.

	Int. Conf. (w/ Proc.)	Int. Conf. (w/o Proc.)	Dom. Conf.
Fujimoto			
Ichinkhorloo			
Jagjit			
Kato			
Kimura			
Saito			
Tada			

4. Next Meeting

17:00, Feb. 1	10 <sup>th</sup> Centre Meeting	JCPRG Seminar Room
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1. Participants (\*: chair)

Fujimoto, Imai\*, Jagjit, Kato, Noto

2. Report

1) [EXFOR]

- EXFOR master files in the JCPRG server were updated.
  - [Jan. 31] 1444, 4180, C177, C178, C179, C180, C181, E118, E119, E120

2) [NRDF]

- One meeting was held on Jan. 18, 2019.
  - [Jan. 18] D0078, D1921, D2218, D2236, D2434, D2553, D2564, D2568, D2589

3) [Annual Report]

- The webpage of JCPRG Annual Report 2016 was opened.
  - <http://www.jcprg.org/annual/2016/>

4) [ImPACT]

- Our activity on ImPACT will be presented as a poster in a symposium on Mar. 9, 2019.
  - The poster will be prepared.
- A paper was published.
  - S. Takeuchi et al., “Coulomb breakup reactions of  $^{93,94}\text{Zr}$  in inverse kinematics”, Prog. Theor. Exp. Phys. 2019, 013D02 (2019).

5) [RIKEN]

- Twelve reports were submitted to RIKEN Annual Progress Report Vol. 52.
  - Jagjit et al., EXFOR compilation of RIBF data in 2018
  - Ditrói et al., Investigation of alpha particle induced reactions on natural silver in the 40-50 MeV energy range (Condensed)
  - Takács et al., Measurement of activation cross sections of alpha particle induced reactions on iridium up to an energy of 50 MeV (Condensed)
  - Takács et al., Activation cross sections of alpha particle induced reactions on natural nickel up to 50 MeV
  - Aikawa et al., Activation cross sections of deuteron-induced reactions on niobium up to 24 MeV (Condensed)
  - Aikawa et al., Activation cross sections of  $\alpha$ -induced reactions on  $^{\text{nat}}\text{Zn}$  for Ge and Ga production (Condensed)
  - Aikawa et al., Activation cross sections of alpha-induced reactions on  $^{\text{nat}}\text{In}$  for  $^{117\text{m}}\text{Sn}$  production (Condensed)
  - Murata et al., Production cross sections of Mo, Nb and Zr radioisotopes from alpha-induced reaction on  $^{\text{nat}}\text{Zr}$  (Condensed)
  - Murata et al., New cross section data for production zirconium-89 by alpha particles

on yttrium target

- Saito et al, Cross section measurement of  $\alpha$ -induced reactions on  $^{nat}\text{Er}$  for  $^{169}\text{Yb}$  production
- Sakaguchi et al., Cross section measurement of the deuteron-induced reaction on  $^{89}\text{Y}$  to produce  $^{89}\text{Zr}$
- Ukon et al., Production cross sections of deuteron-induced reactions on natural palladium for Ag isotopes (Condensed)

6) [Experiment]

- Several experiments are planned to be performed at RIKEN in Feb. and Mar.
  - $\alpha$ -induced reactions on Tm, W, and Ni
  - d-induced reactions on Tb and Zn
- An application to JSPS Bilateral Program by Dr. Haba (RIKEN) and Dr. Takacs (ATOMKI) was accepted.

7) [Conference/Symposium]

- The proceedings on the 2017 Symposium on Nuclear Data were published.
  - Murata et al., “Cross Section Measurement to Produce  $^{99}\text{Mo}$  by Alpha-Induced Reactions on Natural Zirconium”
  - Saito et al., “The measurement of the excitation function of alpha induced reaction on  $^{nat}\text{Yb}$  to produce  $^{177}\text{Lu}$ ”
- The proceedings on the 9th AASPP Workshop held at Gyeongju, Korea on Nov. 12-15, 2018 were published.
  - Ichinkhorloo et al., “Activity of Nuclear Reaction Data in JCPRG”
  - Ichinkhorloo et al., “Analysis of the  $^{16}\text{O}(\text{p,pn})^{15}\text{O}$  Reaction Using the CDCC Method”
  - Aikawa et al., “Systematic study on charged-particle-induced reactions for medical radioisotope production”
- The 10<sup>th</sup> AASPP Workshop will be held at Institute of Nuclear Physics, Almaty on Jun. 24-27, 2019.
  - Due date of registration on Mar. 31
  - Due date of abstract on April 30
- The next AESJ meeting will be held at Ibaraki Univ. on Mar. 20-22, 2019.
  - Aikawa and Saito applied for presentations.

8) [Others]

- To open the https port of the JCPRG server was applied.
- Dr. Takacs stay at Hokkaido Univ. from Jan. 15 to Feb. 9, 2019 and RIKEN from Feb. 9 to 18, 2019.

3. Event Schedule

2018			
Mar. 6-8	Japan forum of nuclear astrophysics	Hokkaido Univ.,	Kimura

		Japan	
Mar. 14-17	JPS Meeting	Kyushu Univ.	
Mar. 20-22	AESJ Meeting	Ibaraki Univ.	Saito
Apr. 9-12	NRDC Meeting	Vienna	Kimura, Tada
May 19-24	ND2019	Beijing, China	
Jun. 24-28	AASPP	Almaty	
Jul. 2-5	OMEG 15 <sup>th</sup>	Kyoto Univ.	

Priority: 1) Int. Conf. w/ Proc., 2) Int. Conf. w/o Proc. and 3) other Confs.

	Int. Conf. (w/ Proc.)	Int. Conf. (w/o Proc.)	Dom. Conf.
Fujimoto			
Ichinkhorloo			
Jagjit			
Kato			
Kimura			
Saito			
Tada			

#### 4. Next Meeting

17:00, Feb. 27	11 <sup>th</sup> Centre Meeting	JCPRG Seminar Room
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## 1. Participants (\*: chair)

Imai\*, Jagjit, Kato, Kimura, Noto, Tada

## 2. Report

## 1) [EXFOR]

- EXFOR master files in the JCPRG server were updated.
  - [Feb. 23] 2268, 2269, 2270, 2271, 3187, E121, F070, K018, L037, O065, O066, R029, S025

## 2) [NRDF]

- No meeting was held in Feb. 2019.

## 3) [ImPACT]

- Our activity on ImPACT will be presented as a poster in a symposium on Mar. 9, 2019.
  - The poster was prepared and submitted.
- Our activity will be reported in the next AESJ meeting.
  - M. Aikawa et al., “Reduction and Resource Recycling of High-level Radioactive Wastes through Nuclear Transmutation (5-2) PHITS simulation based on ImPACT nuclear data”

## 4) [Experiment]

- Experiments were performed at RIKEN by Aikawa, Saito and Takacs.
  - $\alpha$ -induced reactions on Tm, W, and Ni in the beam time on Feb. 11-12, 2019.
- Experiments will be performed at RIKEN by Aikawa, Ichinkhorloo and Zolbadral.
  - d-induced reactions on Tb and Zn in the beam time on Mar. 2-4, 2019.

## 5) [Conference/Symposium]

- The next AESJ meeting will be held at Ibaraki Univ. on Mar. 20-22, 2019.
  - Aikawa and Saito applied for presentations.

## 6) [Compilation]

- Status

Transmitted	<ul style="list-style-type: none"> <li>• Oct. 4: Trans.e116(E2520, E2525, E2541, E2543)</li> <li>• Nov. 29: Trans.e117(E2557, E2574, E2575, E2576, E2578, E2580, E2581)</li> <li>• Jan. 8: Trans.e118(E2524, E2535, E2545, E1921, E2434, E2568, E2553, E2564, E2589)</li> <li>• Jan. 21: Trans.e119(E0078, E2218, E2236, E2265, E2266, E2267, E2268, E2270, E2271, E2275, E2276, E2277, E2278, E2301, E2302)</li> <li>• Jan. 22: Trans.e120(E2269, E2374, E2381, E0030, E1917, E2049, E2394, E2591, E2593, E2125, E2430, E2493)</li> </ul>
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	<ul style="list-style-type: none"> <li>Jan. 31: Trans.e121(E2253, E2258, E2583, E2539, E2584, E2586, E2590, E2592)</li> <li>Feb. 23: Trans.k018(K2003, K2004, K2199, K2348)</li> <li>Feb. 23: Trans.r029(R0007, R0017, R0019, R0029, R0031, R0037, R0039)</li> </ul>
EXFOR Master Update	<ul style="list-style-type: none"> <li>[Feb. 23] 2268, 2269, 2270, 2271, 3187, E121, F070, K018, L037, O065, O066, R029, S025</li> </ul>
NRDF Master Update	<ul style="list-style-type: none"> <li>None</li> </ul>

#### 7) [Others]

- The JCPRG server started to redirect http to https.
- Jagjit will move to RCNP in this April.
- Tada has come back from IAEA

### 3. Event Schedule

2018			
Mar. 6-8	Japan forum of nuclear astrophysics	Hokkaido Univ, Japan	Kimura
Mar. 14-17	JPS Meeting	Kyushu Univ.	
Mar. 20-22	AESJ Meeting	Ibaraki Univ.	Saito
Apr. 9-12	NRDC Meeting	Vienna	Kimura, Tada
May 19-24	ND2019	Beijing, China	
Jun. 24-28	AASPP	Almaty	
Jul. 2-5	OMEG 15 <sup>th</sup>	Kyoto Univ.	Kimura

Priority: 1) Int. Conf. w/ Proc., 2) Int. Conf. w/o Proc. and 3) other Confs.

	Int. Conf. (w/ Proc.)	Int. Conf. (w/o Proc.)	Dom. Conf.
Fujimoto			
Ichinkhorloo			
Jagjit			
Kato			
Kimura			
Saito			
Tada			

### 4. Next Meeting

17:00, Mar. 19	12 <sup>th</sup> Centre Meeting	JCPRG Seminar Room
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1. Participants (\*: chair)

Ichinkhorloo, Imai\*, Jagjit, Kato, Kimura, Noto, Tada

2. Report

1) [ImPACT]

- Our activity on ImPACT was presented as a poster presentation in a symposium on Mar. 9, 2019.
- Our activity will be reported in the next AESJ meeting.
  - M. Aikawa et al., “Reduction and Resource Recycling of High-level Radioactive Wastes through Nuclear Transmutation (5-2) PHITS simulation based on ImPACT nuclear data”

2) [Experiment]

- Experiments were performed at RIKEN by Ichinkhorloo, Zolbadral and Aikawa.
  - d-induced reactions on Tb and Zn

3) [RIKEN]

- Referee comments on the APR report below were received. The report was revised according to the comments and re-submitted.
  - M. Aikawa et al., "Activation cross sections of deuteron-induced reactions on niobium up to 24 MeV"

4) [Conference/Symposium]

- The next AESJ meeting will be held at Ibaraki Univ. on Mar. 20-22, 2019.
- The deadline of AASPP for registration on the end of March.
  - Tada will attend
  - The deadline of abstract on the end of April.

5) [Compilation]

- Status

Transmitted	<ul style="list-style-type: none"><li>• March 19: Trans.e122 (E0029, E0832, E 0838, E1154, E1294, E1399, E1669, E1677, E1748, E1829, E1846, E1910, E1974, E2007, E2036, E2074, E2089, E2091, E2434)</li></ul>
EXFOR Master Update	<ul style="list-style-type: none"><li>• None</li></ul>
NRDF Master Update	<ul style="list-style-type: none"><li>• None</li></ul>

6) [Others]

- Tada will go to IAEA in April.
- There is a candidate of postdoc.



### 3. Event Schedule

2019			
Mar. 20-22	AESJ Meeting	Ibaraki Univ.	Saito
Apr. 9-12	NRDC Meeting	Vienna	Kimura, Tada
May 19-24	ND2019	Beijing, China	
Jun. 24-28	AASPP	Almaty	Tada
Jul. 2-5	OMEG 15 <sup>th</sup>	Kyoto Univ.	Kimura

Priority: 1) Int. Conf. w/ Proc., 2) Int. Conf. w/o Proc. and 3) other Confs.

	Int. Conf. (w/ Proc.)	Int. Conf. (w/o Proc.)	Dom. Conf.
Fujimoto			
Ichinkhorloo			
Jagjit			
Kato			
Kimura			
Saito			
Tada			

### 4. Next Meeting

17:00, May 10	1 <sup>st</sup> Centre Meeting	JCPRG Seminar Room
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