



HOKKAIDO
UNIVERSITY



Nuclear Reaction
Data Centre (JCPRG)
Faculty of Science, Hokkaido University

JCPRG Progress Report

April 9-12, 2019

Tetsuaki Tada

**Nuclear Reaction Data Centre (JCPRG)
Hokkaido University
JAPAN**

Nuclear Reaction Data Centre (JCPRG), Hokkaido University



Nuclear Reaction Data Centre (JCPRG), Hokkaido University

Nuclear Reaction Data Centre (JCPRG) is a research center for nuclear data activities in **Hokkaido University**.

The objectives of the center:

Compilation of charged-particle reaction data in Japan

Evaluation of nuclear reaction data

Collaboration with domestic and international institutes



Nuclear Reaction Data Centre (JCPRG), Hokkaido University

We have 10+ researchers and staff.

JCPRG is advised and assessed by the Committee.

JCPRG Member	
Staff	M. Kimura (AP), S. Imai (A)
Researchers	D. Ichinkhorloo, T. Tada
Senior Researchers	K. Kato, M. Fujimoto
Supporting staff	M. Aikawa, H. Noto, M. Chiba, T. Katayama
Steering Committee	Horiguchi, Kimura, Hirabayashi, Arimura, Kamiyama
External Advisory Committee	Aoi (RCNP), Fukahori (JAEA), Ohnishi (YITP), Otsuka (IAEA), Sakurai (RIKEN)



Data Compilation at JCPRG

Two Databases are compiled at JCPRG; **EXFOR** and **NRDF**

Compilation Working Group	
EXFOR	Aikawa, Imai, Ichinkhorloo, Tada, Kimura
NRDF	Chiba, Katayama, Kato, Noto

EXFOR: 53 new entries

NRDF (original database developed by JCPRG): 53 new entries



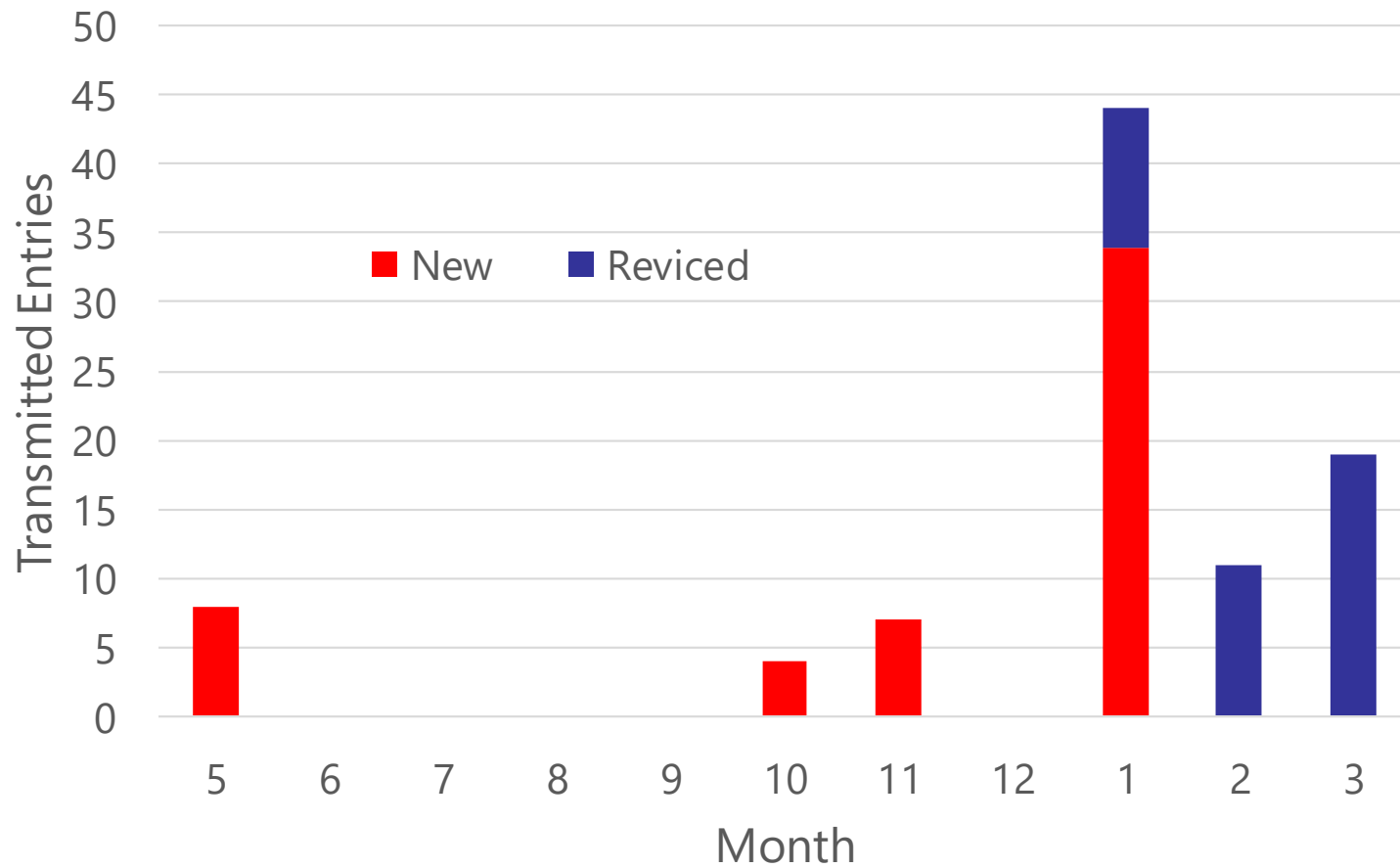
EXFOR Compilation at JCPRG

EXFOR: 53 new and 40 revised entries were compiled at JCPRG since the last NRDC meeting.

TRANS	TRANS Status	ENTRY Tot.	ENTRY New	ENTRY Rev.
E115	Final(2018/05/01)	8	8	0
E116	Final(2018/10/04)	4	4	0
E117	Final (2018/11/29)	7	7	0
E118	Final (2019/01/08)	9	6	3
E119	Final (2019/01/21)	15	15	0
E120	Final (2019/01/22)	12	6	6
E121	Final (2019/01/31)	8	7	1
E122	Final (2019/03/19)	19	0	19
K018	Final (2019/02/23)	4	0	4
R029	Final (2019/02/23)	7	0	7
Total		93	53	40

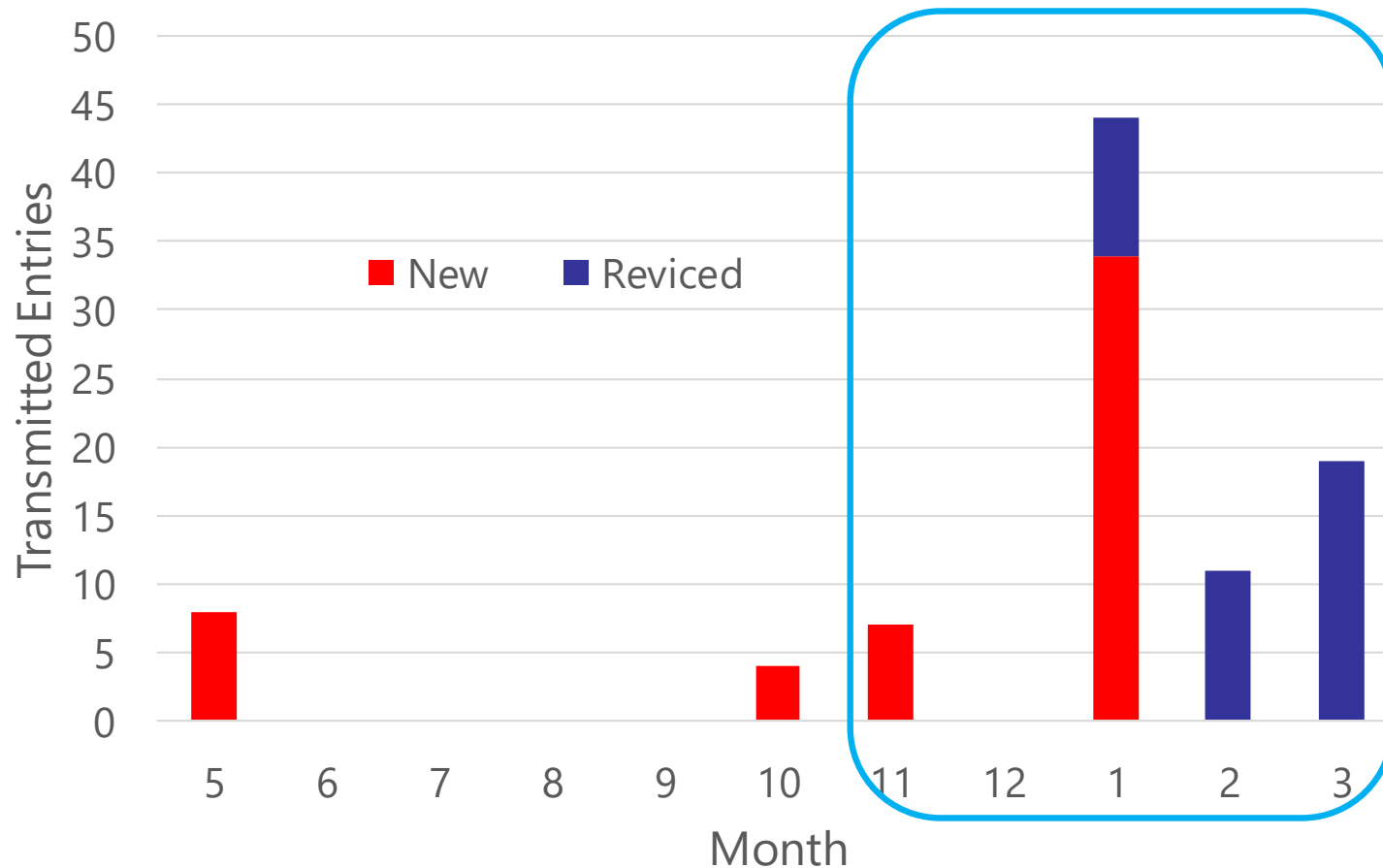


EXFOR Compilation at JCPRG



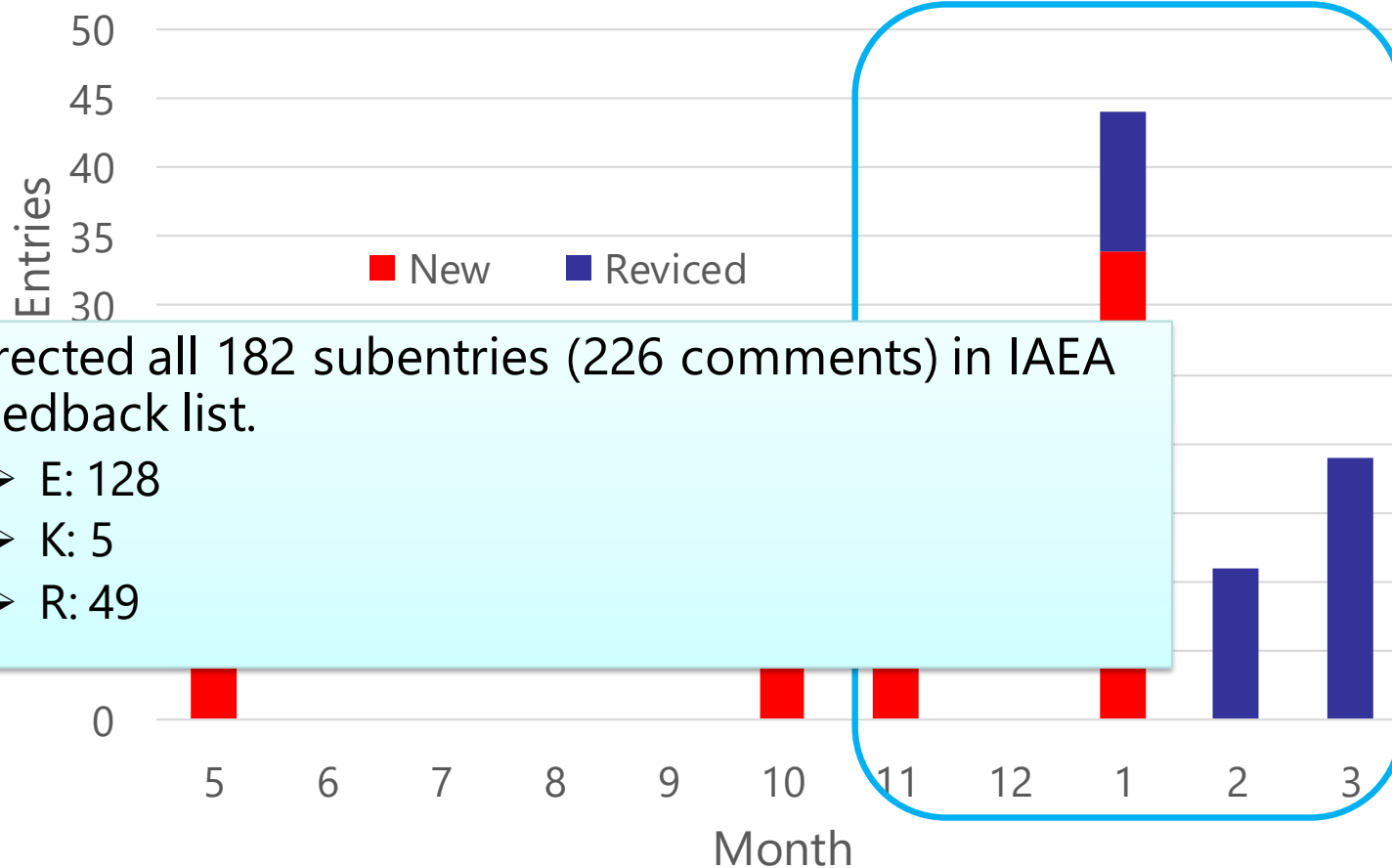
EXFOR Compilation at JCPRG

Internship(TRANS.E117-122, K018 and R029)



EXFOR Compilation at JCPRG

Internship(TRANS.E117-122, K018 and R029)



I corrected all 182 subentries (226 comments) in IAEA feedback list.

- E: 128
- K: 5
- R: 49



Software for Database Coding

Editor "HENDEL", <http://www.jcprg.org/manuals/hendel/>

Digitizer "GSYS", <http://www.jcprg.org/gsys/gsys-e.html>

Data Retrieval System

NRDF: <http://www.jcprg.org/nrdf/>

NRDF/A: <http://www.jcprg.org/nrdfa/>

EXFOR/ENDF <http://www.jcprg.org/exfor/>



International and Domestic collaboration

IAEA and NRDC

CA-NRDB: Nuclear Physics, Nuclear Technology

RIKEN: Transmutation, Medicine

JAEA: Transmutation, Medicine

ATOMKI: Medicine

Experiments were performed at ATOMKI and RIKEN.

Theoretical calculation will be performed
in collaboration with JAEA.

Evaluation: Pairing in continuum of n-rich nuclei

PADOVA: continuum excitations of weakly bound nuclei

YORK: Role of different pairing interactions.



Summary

JCPRG is a data center at Hokkaido University, Japan, which aims;

Compilation of charged-particle reaction data in Japan

53 EXFOR and NRDF new entries since the last NRDC meeting.

Evaluation of nuclear reaction data

Analysis of neutron-induced reactions of light nuclei and structure of n-rich dripline nuclei.

Collaboration with domestic and international institutes

IAEA, NRDC, RIKEN, JAEA, ATOMKI,...

T. Tada will stay IAEA again from 9th to 26th April in this fiscal year.

