

# RIBF ULIC Symposium Report

## SHOGUN WORKSHOP 2011, Feb. 4–5

<http://indico.riken.jp/indico/conferenceDisplay.py?confId=350>  
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March 8, 2011

## Contents

<b>1 Summary of Discussions</b>	<b>1</b>
<b>2 Applicant</b>	<b>1</b>
<b>3 Participants</b>	<b>2</b>
3.1 Participants by Country . . . . .	2
3.2 List of Participants . . . . .	2
3.3 Details . . . . .	3
<b>4 Supported Expenses</b>	<b>3</b>

## 1 Summary of Discussions

A next generation  $\gamma$ -ray spectrometer based on the novel scintillator  $\text{LaBr}_3(\text{Ce})$  is envisioned for the RIBF. The array would feature excellent time resolution (sub-ns), high full energy peak efficiency ( $> 30\%$ ) and excellent energy resolution (2–3%).

During the workshop the latest developments in scintillation detector research were discussed to see if there are alternative scintillators that could be used for the SHOGUN array. Currently a very rapid development of scintillator materials is taking place. New and better materials are likely to emerge in the future, but

$\text{LaBr}_3(\text{Ce})$  is still one of the best choices.

Furthermore, in several presentations overviews were given on other large scintillator arrays currently being constructed or already in operation, not only using  $\text{LaBr}_3(\text{Ce})$ , but also other (traditional) scintillators. Also discussed were projects employing  $\text{LaBr}_3(\text{Ce})$  in other fields, such as  $\gamma$ -ray (MeV) astronomy, medical imaging and nuclear engineering.

Finally physics cases and new ideas for experiments with the SHOGUN array were presented and discussed.

## 2 Applicant

Heiko Scheit  
RI Phys. Lab., RIKEN

## 3 Participants

### 3.1 Participants by Country

Country	#
ITALY	3
JAPAN	27
POLAND	1
REPUBLIC OF KOREA	4
SPAIN	1
UNITED KINGDOM	1
UNITED STATES	7

### 3.2 List of Participants

Table 1: List of Participants

#	Name	Affiliation	Country
1	AOI, nori	RNC	JAPAN
2	Dr. BIZARRI, Gregory	Lawrence Berkeley National Laboratory	UNITED STATES
3	BOURRET, Edith	Lawrence Berkeley National Laboratory	UNITED STATES
4	Prof. CAMERA, Franco	Universit di Milano and INFN (Milano)	ITALY
5	Dr. CHEREPY, Nerine	Lawrence Livermore National Laboratory	UNITED STATES
6	Prof. CHOI, Seonho	Seoul National University	REPUBLIC OF KOREA
7	Prof. CHOWDHURY, Partha	University of Massachusetts Lowell	UNITED STATES
8	Dr. CORTINA, Dolores	Universidad de Santiago de Compostela	SPAIN
9	Dr. DOORNENBAL, Pieter	RIKEN	JAPAN
10	Dr. HARADA, Hideo	Japan Atomic Energy Agency	JAPAN
11	Mr. HWANG, Jongwon	Department of Physics and Astronomy Seoul National University	REPUBLIC OF KOREA
12	Dr. ICHIKAWA, Yuichi	RIKEN, Nishina Center, Pol.RI team	JAPAN
13	Dr. IDEGUCHI, Eiji	CNS, University of Tokyo	JAPAN
14	ISOBE, Tadaaki	RIKEN	JAPAN
15	Prof. KIM, Yong Kyun	Hanyang University	REPUBLIC OF KOREA
16	KOIKE, takeshi	Tohoku University	JAPAN
17	Mr. KUROSAWA, Shunsuke	Kyoto University	JAPAN
18	Dr. LEE, Jenny	RIKEN	JAPAN
19	Dr. LEE, Ju Hahn	Department of Physics, Chung-Ang University	REPUBLIC OF KOREA
20	LORUSSO, Giuseppe	RIKEN	JAPAN
21	Dr. MACCHIAVELLI, Augusto	Nuclear Science Division Lawrence Berkeley National Laboratory	UNITED STATES
22	Prof. MAJ, Adam	IFJ PAN	POLAND
23	Mr. MATSUSHITA, Masafumi	Department of Physics, Rikkyo Univ.	JAPAN
24	Dr. MENGONI, Alberto	Italian Embassy, Tokyo	JAPAN
25	Dr. MILLION, Bndicte	INFN sezione di Milano	ITALY
26	Dr. MOTOBAYASHI, Tohru	RIKEN Nishina Center	JAPAN
27	Prof. NAKAMURA, Takashi	Tokyo Institute of Technology	JAPAN
28	Dr. NISHIMURA, Shunji	RIKEN	JAPAN

(continued on next page)

Table 1: List of Participants (continued)

#	Name	Affiliation	Country
29	Dr. ROBERTS, Oliver	University of Brighton	UNITED KINGDOM
30	SAKURAI, Hiroyoshi	RNC	JAPAN
31	Dr. SCHEIT, Heiko	RIKEN Nishina Center	JAPAN
32	Prof. SHIMORUA, Susumu	CNS, Univ. Tokyo	JAPAN
33	Dr. STEPPENBECK, David	RIKEN	JAPAN
34	Dr. TAKEUCHI, Satoshi	RIKEN Nishina Center	JAPAN
35	Dr. TOGANO, Yasuhiro	RIKEN Nishina Center	JAPAN
36	Dr. UESAKA, Tomohiro	CNS, University of Tokyo	JAPAN
37	WATANABE, Fusao	Techno AP	JAPAN
38	Dr. WATANABE, Hiroshi	RIKEN	JAPAN
39	Dr. WATANABE, Yasushi	RIKEN, Radiation Lab	JAPAN
40	Dr. WEISSHAAR, Dirk W	NSCL/MSU	UNITED STATES
41	Dr. WIELAND, Oliver	INFN sezione di Milano	ITALY
42	Mr. XU, Zhengyu	RIKEN	JAPAN
43	YOSHINAGA, Kenta	TOKYO UNIVERSITY OF SCIENCE	JAPAN
44	Dr. ZHU, Shaofei	Argonne National Laboratory	UNITED STATES

### 3.3 Details

For details see: <http://indico.riken.jp/indico/confRegistrantsDisplay.py/list?confId=350>

## 4 Supported Expenses

Item	cost (Yen)
Travel	
CORTINA Dolores	125,416
HWANG Jongwon	27,540
KOIKE Takeshi	40,380
Coffee, Snacks	31,490
<b>Total</b>	<b>224,826</b>

Several participants from the US were supported by the JUSEIPEN program.