As of Nov. 2019

Report from AONSA Office

-After EC meeting in May 2019 in Mianyang

Website maintains

Updated of AONSA School, Member Societies, AOCNS2019, and AONSA Newsletter.

Budget

Payment and issue receipts for the sponsorship fee of AONSA Neutron School to KNBUA.

Preparation for budget report of EC meeting

Send all revenue and expenditure report with copies of the account book and bankbooks to treasurer by email.

Preparation for AOCNS

Send the supporting fee of AOCNS to TWINSS.

Communications with AONSA Prize winner, Payment for AONSA Prize money, and prepare the souvenir.

Remittance of the travel fees of the past presidents.

AONSA Young Research Fellowship

Communications with candidates, and reimbursement of airfare

Message from AONSA Office

Following announcements were distributed to the AONSA members.

The 4th Neutron and Muon School

2020A MLF Call for Proposals

The 11th AONSA Neutron School 2019

- 19th – 23th August 2019
- KAERI, Daejeon, KOREA
- 17 students and 17 lectures have attended.

Sponsor

Korea Atomic Energy Research Institute

AONSA

KNBUA
The Korean Neutron Beam Users Association

❖ Students

Community of Origin	Number of Students	Passport
Korea	11	Korea 9
		China 1
		Pakistan 1
Taiwan	3	
Thailand	1	
Malaysia	1	
Indonesia	1	
Total	**17**	

	Given Name	Family Name	Title	Institutio
1	Che-Min	Chou	Dr.	National Synchrotron Radiat
2	Chia Ching	Lin	Graduate student	National Tsing Hua
3	Yu-Kai	Liao	Graduate student	National Taiwan Norm
4	Ari	Prabowo	Undergraduate	Universitas Gadj
5	Tanagorn	Kwamman	Dr.	Thailand Institute of Nuc
6	Khariah	Yazid	Ms.	University Sains
7	Huai	Wang	Graduate student	Chungnam Nationa
8	Zeeshan	Rehman	Dr.	Hongik Unive
9	Daeho	Yun	Graduate student	Chungnam Nationa
10	You Sub	Kim	Graduate student	Chungnam Nationa
11	Hyongjoon	Lee	Graduate student	Chungnam Nationa
12	Sooji	Park	Graduate student	Hanyang univ
13	Jaewoo	Park	Ms.	Gyeongnam National University o
14	Gunwoo	Yoo	Graduate student	Ajou Univer
15	Yunseok	Heo	Graduate student	Pusan National U
16	Sang-Woo	Jeon	Graduate student	Chonbuk National
17	Young-jin	Yoon	Undergraduate	Chonbuk National

❖ Lecturer

Community of Origin	Number of Students
Korea	15
Australia	1
Japan	1
Total	**17**

	Given Name	Family Name	Title	Institutio
1	Brendan	Kennedy	Prof.	The Univ. of S
2	Masaaki	Sugiyama	Prof.	Kyoto Uni
3	Jae-Ho	Chung	Prof.	Korea Uni
4	Sungkyun	Park	Prof.	Pusan Nationa
5	Jae-Geun	Park	Prof.	Seoul Nationa
6	Soo Yeol	Lee	Prof.	Chungnam Natio
7	Sungil	Park	Dr.	KAERI
8	Tae Young	Lee	Dr.	KAERI
9	Chang Hee	Lee	Dr.	KAERI
10	Young Soo	Han	Dr.	KAERI
11	Ji Young	So	Dr.	KAERI
12	Hiraka	Haruhiro	Dr.	KAERI
13	Hyungsub	Kim	Dr.	KAERI
14	Jung Soo	Lee	Dr.	KAERI
15	Wan Chuck	Woo	Dr.	KAERI
16	Tae Joo	Kim	Dr.	KAERI
17	Jongyul	Kim	Dr.	KAERI

8/19(Mon)

Time	Session	Topic	Lecturer
8:00 - 9:00	Breakfast		
9:00 - 9:50	Registration		
9:50 - 10:00	Opening		
	Prof. Jae-Ho Chung (Korea Univ.)		
10:00 - 10:55	Sci. Lecture	Overview of Neutron Science	Prof. Sungkyun Park (PNU)
11:00 - 11:55	Intro.	Facility overview	Dr. Sungil Park (KAERI)
12:00 - 13:30	Lunch		
13:30 - 13:55	Intro.	Health Physics	Dr. Tae Young Lee (KAERI)
14:00 - 15:00	Intro.	Neutron Beam instrumentation	Dr. Chang Hee Lee (KAERI)
15:15 - 17:30	Intro.	HANARO Tour	Dr. Sungil Park (KAERI)
18:00 - 20:00	Welcome Dinner		

8/20(Tue)

Time	Session	Topic	Lecturer
8:00 - 9:00	Breakfast		
9:00 - 10:15	Sci. Lecture	Biological Small-Angle Neutron Scattering	Prof. Masaaki Sugiyama (Kyoto University)
10:30 - 11:45	Sci. Lecture	Neutron scattering for condensed matter physics	Prof. Jae-Geun Park (SNU)
11:45 - 13:00	Lunch		
13:00 - 15:00	Demo. & Practice	Small Angle Neutron Scattering	Dr. Young Soo Han (KAERI)
15:00 - 15:30	Coffee Break		
15:30 - 17:30	Demo. & Practice	Disk Chopper Time-of-flight	Dr. Ji Yong So (KAERI)

8/21(Wed)

Time	Session	Topic	Lecturer
8:00 - 9:00	Breakfast		
9:00 - 10:15	Sci. Lecture	In-Situ and In-Operando Diffraction. Why the Middle Matters?	Prof. Brendan Kennedy (Univ. of Sydney)
10:30 - 11:45	Sci. Lecture	Introduction to Inelastic Neutron Scattering	Dr. Hiraka Haruhiro (KAERI)
11:45 - 13:00	Lunch		
13:00 - 15:00	Demo. & Practice	High-Resolution Powder Diffractometer	Dr. Hyungsub Kim (KAERI)
15:00 - 15:30	Coffee Break		
15:30 - 17:30	Demo. & Practice	Neutron Reflectometry	Dr. Jung Soo Lee (KAERI)
18:00 20:00	Banquet		

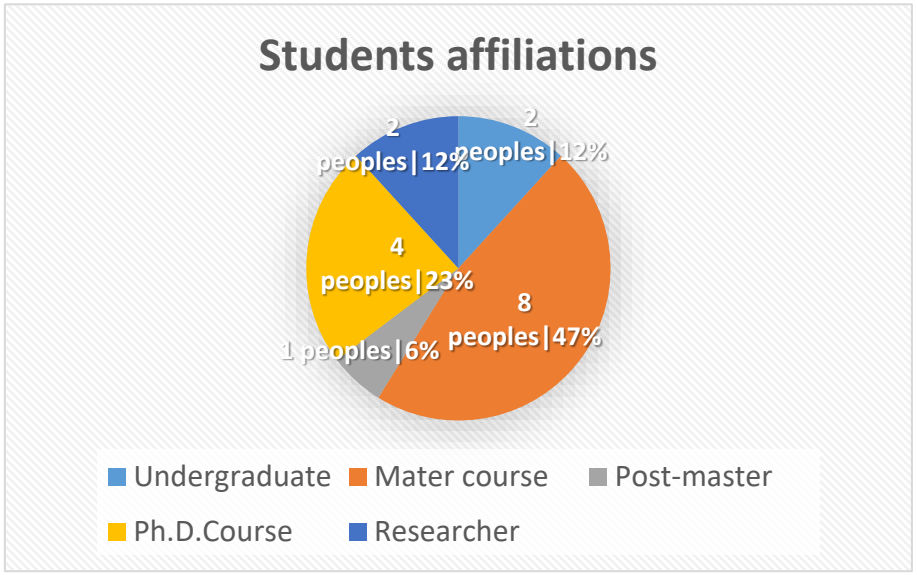
8/22(Thu)

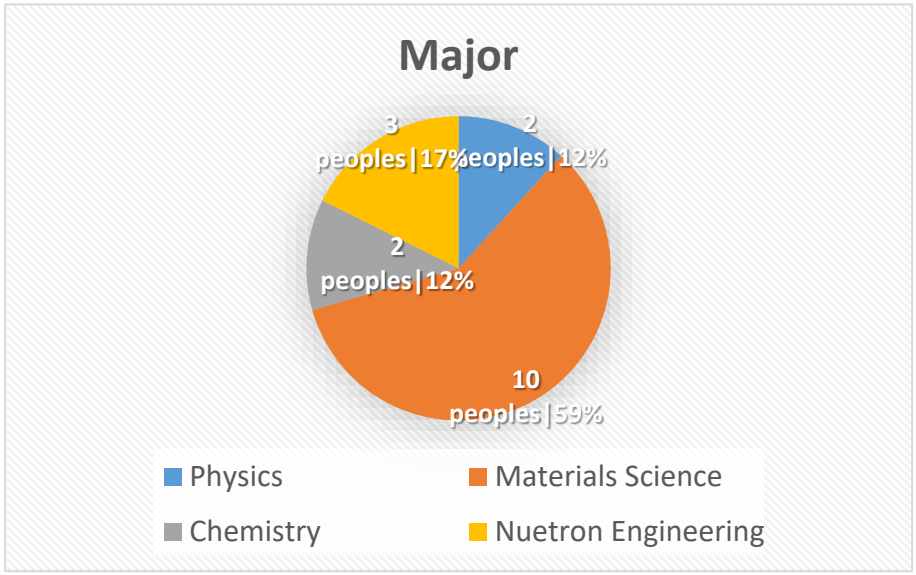
Time	Session	Topic	Lecturer
8:00 - 9:00	Breakfast		
9:00 - 10:15	Sci. Lecture	Neutron Scattering in Engineering Applications	Prof. Soo Yeol Lee (CNU)
10:30 - 11:45	Sci. Lecture	Single Crystal Diffraction Technique and Its Applications	Dr. In Hwan Oh (KAERI)
11:45 - 13:00	Lunch		
13:00 - 15:00	Demo. & Practice	Residual Stress Instrument	Dr. Wan Chuck Woo (KAERI)
15:00 - 15:30	Coffee Break		
15:30 - 17:30	Demo.& Practice	Neutron Radiography	Dr. Tae Joo Kim (KAERI) Dr. Jong Yul Kim (KAERI)

8/23(Fri)

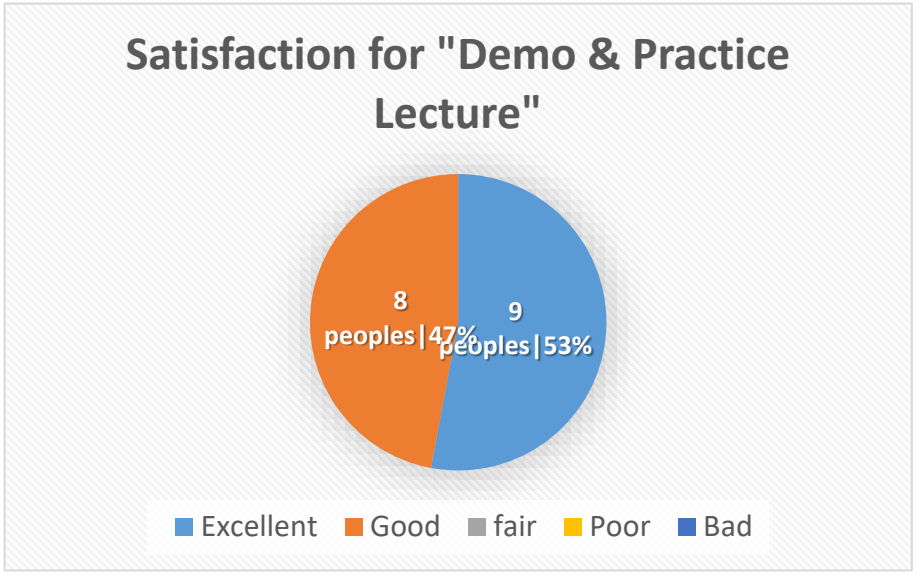
Time	schedule
8:00 - 9:00	Breakfast
9:00 - 11:45	Student Presentation
11:45 - 12:00	Closing
	Dr. Sungil Park (KAERI)

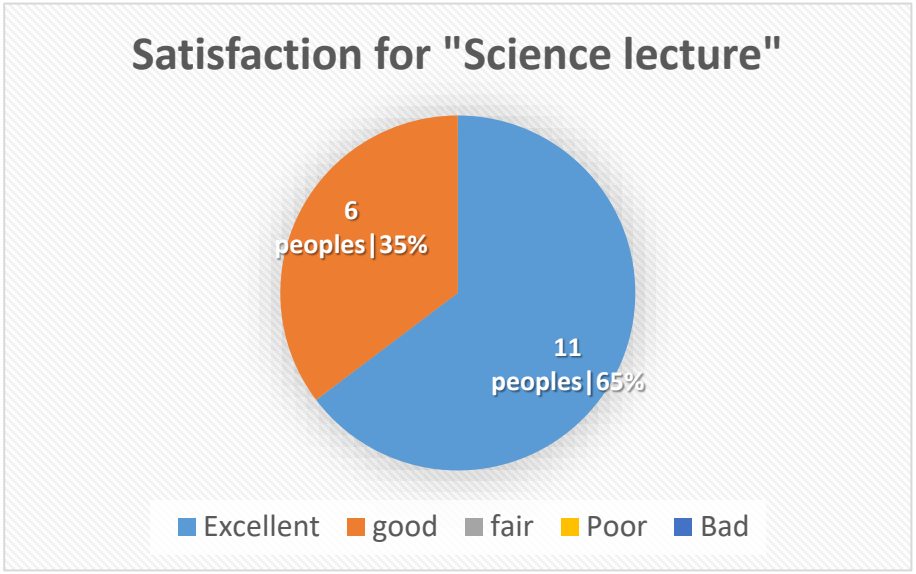
Affiliations and Majors of participants



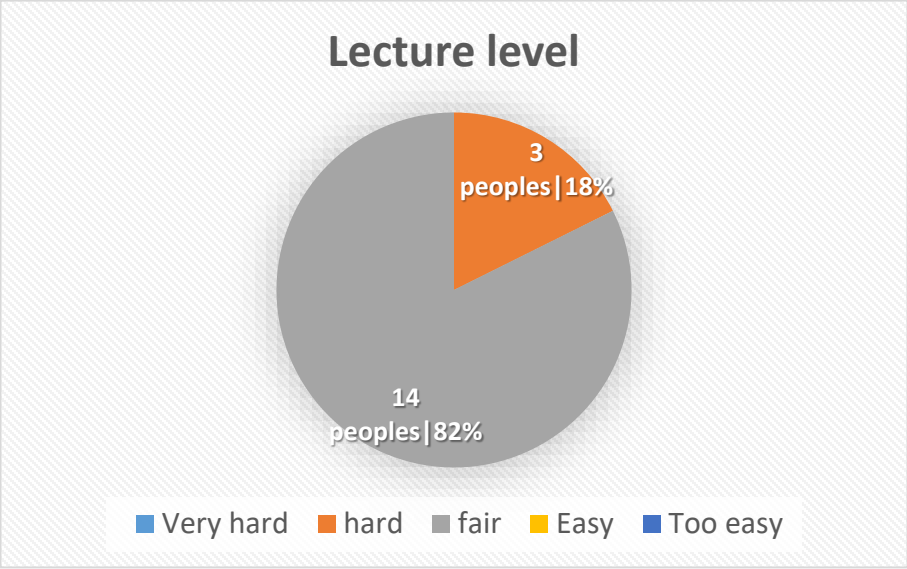


Satisfaction for the Lectures

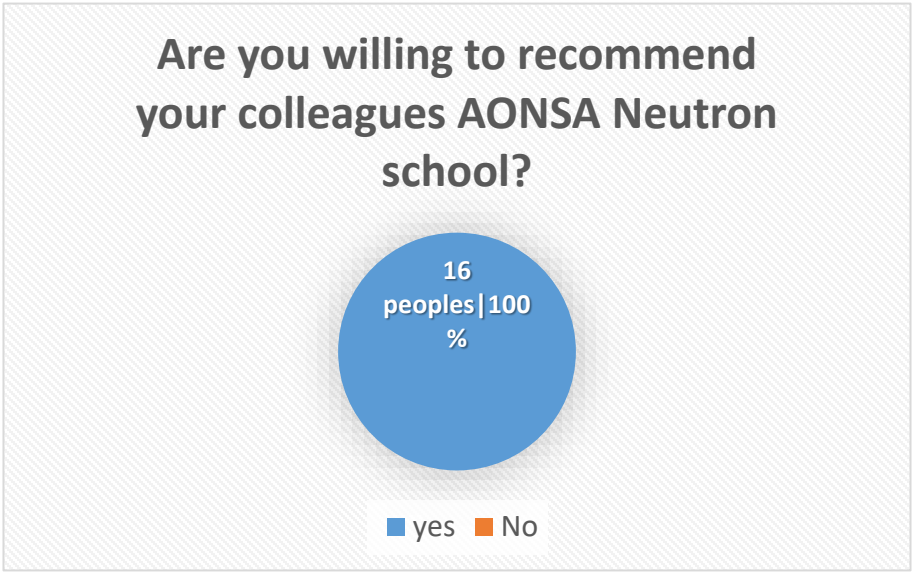




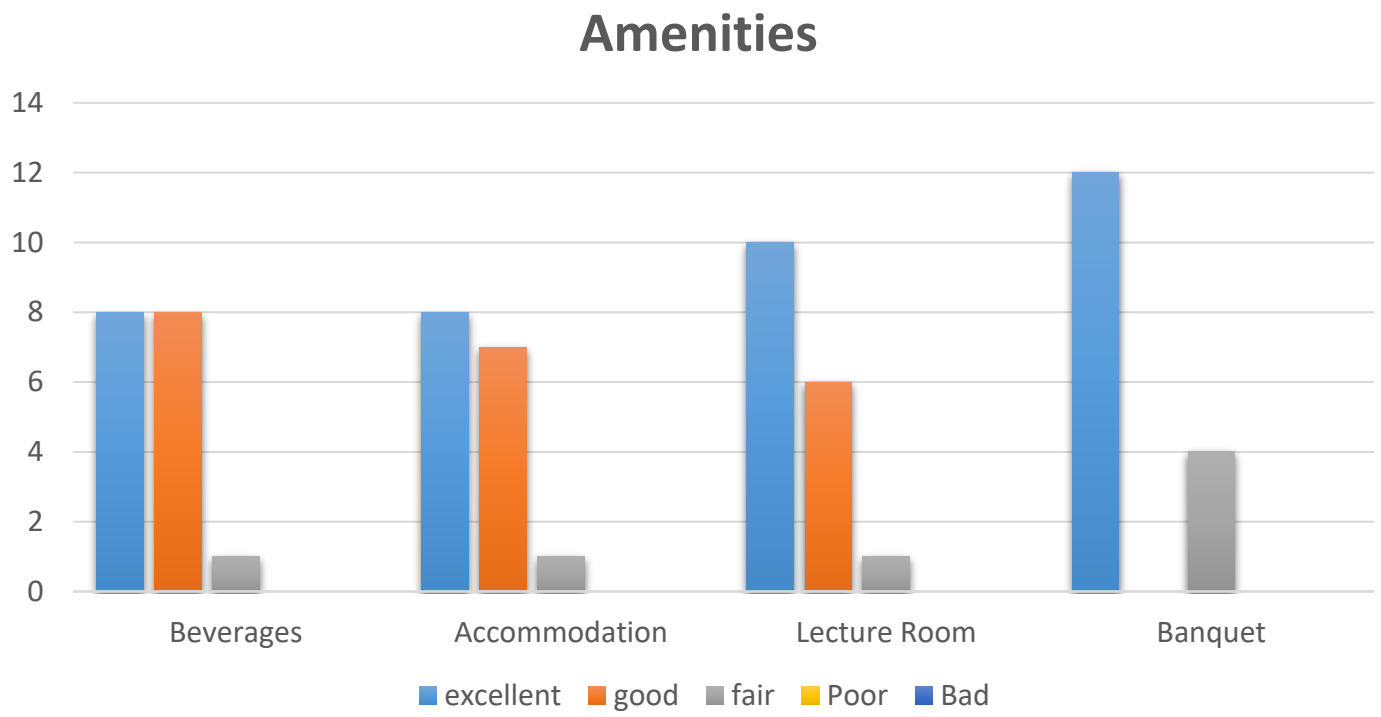
Level of the Lecture



Willing to recommend the AONSA school?



Amenities


Amenities
14
12
10
8
6
4
2
0
Beverages
Accommodation
Lecture Room
Banquet
excellent
good
fair
Poor
Bad

Report of AONSA Prize & AONSA Young Research Fellowship

Dongfeng Chen

2019-11-18, Kenting, Taiwan

AONSA Prize

The Asia-Oceania Neutron Scattering Association (AONSA) awards the AONSA Prize **every two years** to a person or persons to recognize his/her or their outstanding research career with a significant impact or contribution to the **use or development of neutron science and technology in the Asia-Oceania Region.**

2010 2011 | 2012 2013 | 2014 2015 | 2016 2017 | **2018 2019**

AONSA Prize-Rules

AONSA Prize Selection Committee(SC)

- The SC shall consist of **seven members**. The Chair shall be the AONSA Vice President and the other six members shall be appointed by the EC. **Their term shall be two years** (one selection cycle). A member can be reappointed for the next selection cycle (up to two cycles for four years).
- The **SC shall be independent of the EC**. Nominations shall be treated in confidence within the SC.
- The **SC members shall represent a broad range of member societies (not observers)** and fields of neutron science and technology. The Chair of the SC may co-opt a person or persons from member societies or from observer country/region when none of five members can cover research field(s) for reviewing nominations submitted. Co-opted member(s) shall be approved by the EC.

AONSA Prize -SC Members

Organization	Nominee Name	Science Expertise	Affiliation	Position
CNSS	Dongfeng Chen	Condensed Matter Physics	China Institute of Atomic Energy (CIAE)	Department Director
ANBUG	Ian Gentle	Structural Chemistry, Diffraction, Small Angle Scattering and Reflectometry	Faculty of Science, The University of Queensland	Executive Deputy Dean
INSS	Eddy Giri Rahman Putra	Small-Angle Neutron Scattering	Nuclear Energy Agency of Indonesia (BATAN)	Professor
JSNS	Mitsuhiro Shibayama	Soft Material, Polymer Physics, Small-Angle Neutron Scattering, SAXS	JRR3/Univ. of Tokyo	Professor
KNBUA	Ki Bong Lee	Condensed Matter Physics	Pohang University of Science and Technology	Professor
NSSI	S. M. Yusuf	Solid State Physics	Bhabha Atomic Research Center	Head
TWNSS	Hsin-Lung Chen	Polymer Physics, Self-assembly of Polymers, Small Angle Scattering	National Tsing Hua University	Professor

AONSA Prize -Winner

"For his seminal contributions in building Asia-Oceania Neutron Scattering Association and the establishing of the neutron scattering community and facility in Korea, for his successful application of second harmonic generation (SHG) to investigate the air/liquid"

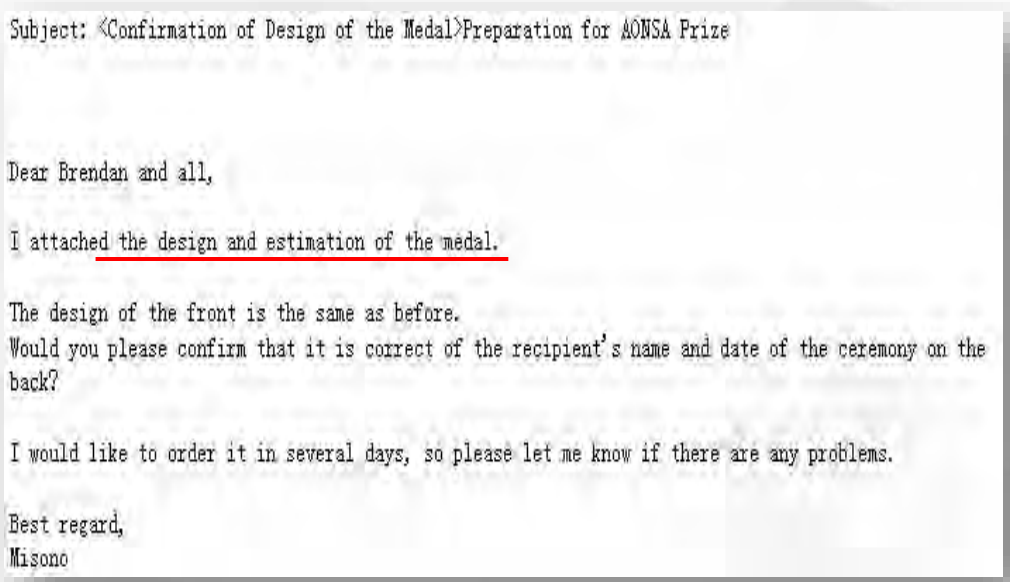
Mahn Won Kim

Department of Physics

Korea Advanced Instituted of Science and Technology

AONSA Prize -Preparation

- Paper work for winner(AONSA office)
- Communication (AONSA office)
  - Monetary Prize
  - Winner's travel and so on
  - Speeches during the AOCNS-2019 Kaohsiung, Taiwan
- Presenter (AONSA President: Brendan)
- Many thanks for all your efforts……



Subject: <Confirmation of Design of the Medal>Preparation for AONSA Prize

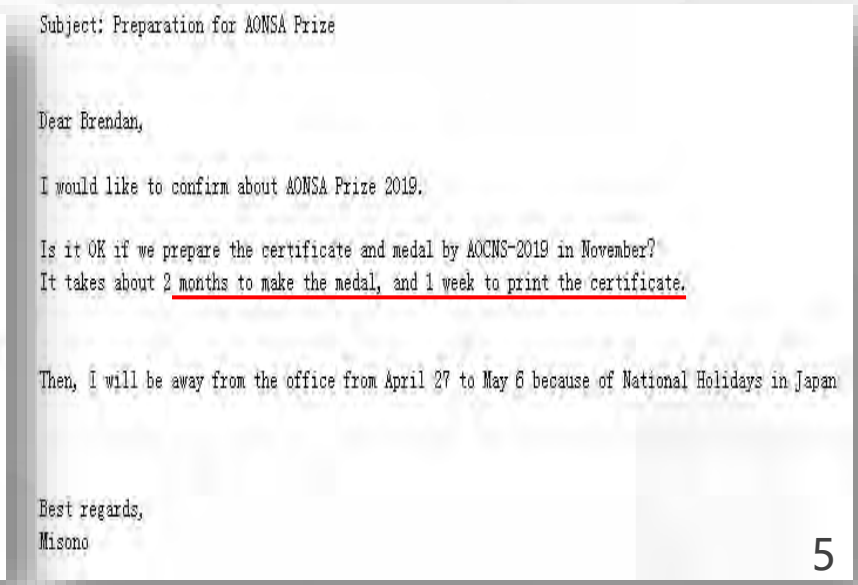
Dear Brendan and all,

I attached the design and estimation of the medal.

The design of the front is the same as before.
Would you please confirm that it is correct of the recipient's name and date of the ceremony on the back?

I would like to order it in several days, so please let me know if there are any problems.

Best regard,
Misono



Subject: Preparation for AONSA Prize

Dear Brendan,

I would like to confirm about AONSA Prize 2019.

Is it OK if we prepare the certificate and medal by AOCNS-2019 in November?
It takes about 2 months to make the medal, and 1 week to print the certificate.

Then, I will be away from the office from April 27 to May 6 because of National Holidays in Japan

Best regards,
Misono

AONSA Young Research Fellows(YRF)

Young Research Fellowship Program is to support **highly talented young scientists** with leadership potential in the Asia-Oceania region, helping them to develop their career and expertise in neutron science and technology. The Program will provide **financial support for Fellows to visit major neutron facilities** in the region for collaborative research using neutrons.

2016 → 2017 → 2018 → 2019 → **2020**

AONSA YRF 2020-Rules

YRF Selection Committee(SC)

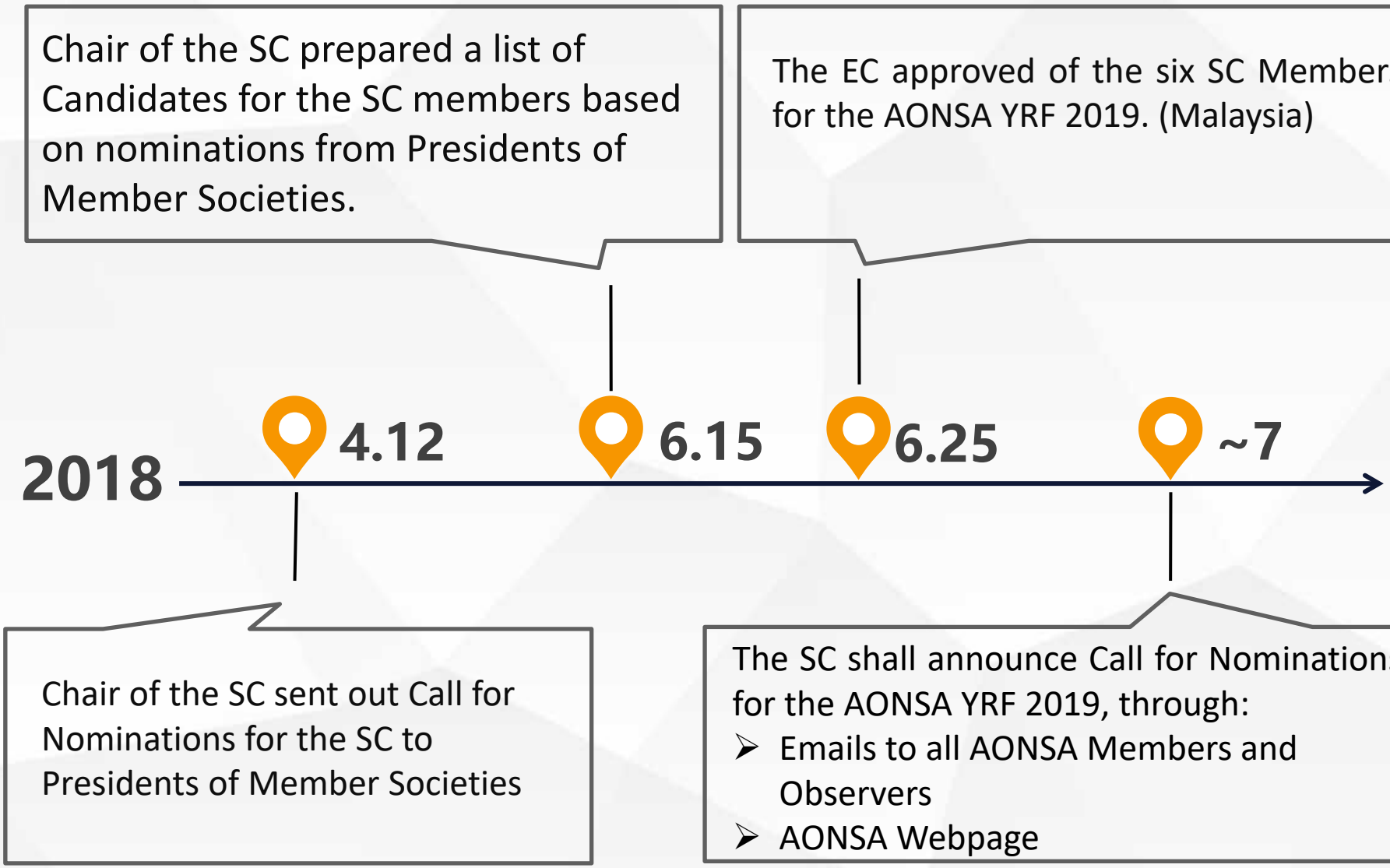
- The SC shall consist of **seven members**. The Chair shall be the AONSA Vice President and the other six members shall be appointed by the EC. **Their term shall be two years** (one selection cycle). A member can be reappointed for the next selection cycle (up to two cycles for four years).

- The **SC members shall represent a broad range of member societies** (not observers) and fields of neutron science and technology. The Chair of the SC may co-opt a person or persons from member societies or from observer country/region when none of five members can cover research field(s) for reviewing nominations submitted. Co-opted member(s) shall be approved by the EC.

AONSA YRF 2020-SC members

Organization	Nominee Name	Science Expertise	Affiliation	Position
CNSS	Dongfeng Chen	Condensed matter physics	China Institute of Atomic Energy	Department Director
ANBUG	Anna Paradowska	Strain Scanning, Engineering	Bragg Institute, ANSTO	Instrument Scientist and Industry Coordinator
INSS	Evvy Kartini	Condensed matter physics	Nuclear Energy Agency of Indonesia (BATAN)	Professor
JSNS	Hideki Seto	Synchrotron light	High Energy ccelerator Research Organization	Deputy Director
KNBUA	In-Hwan Oh	Crystallography	KAERI	principal researcher
NSSI	P.U. Sastry	Structural study using Neutron Scattering	Bhabha Atomic Research Center	Professor
TWNSS	Ya-Sen Sun	SAXS and SANS, soft matter, polymer physics	National Central University	Professor

YRF 2020-schedule



YRF 2020-schedule

AONSA office will prepare a summary of all applications and Chair of SC shall send out all application documents to SC members for review.

The final selections will be made by the SC for the YRF 2020

2019 — 8.31 — ~9 — ~11 — To now

Deadline for Applications for the AONSA YRF 2020

The SC will make a public announcement of the AONSA YRF 2020 through:

- AONSA homepage
- AONSA Newsletters
- Neutron News

AONSA YRF 2020- 9 candidate

Hao Guo
China
CNSS

Haque,Rezwanul
Australian
ANBUG

Jungju Ryu
Republic of Korea
KNBUA

Kuperkar C. Ketan
Indian
NSSI

Yanxu Wang
China
JSNS

RAHMAN
Mahbubur
Mohammad
Bangladeshi

Putri Berlian
Kesuma Witha
Indonesian
INSS

Tingting Song
China
ANBUG

Taisen ZUO
China
CNSS

YRF 2020-Remarks (6-1)

Name of Applicant	1st PFI	2nd PFI	Review Comments	Grade
Song Tingting	J-PARC	CSNS	Experience in using x-ray based techniques (Verify suitability of neutron instruments for proposed work)	E
Kuperkar C. Ketan (Received his PhD in 2010)	ANSTO	J-PARC	His work on surfactants is good and the systems of proposed study have potential applications	E-VG
Haque Rezwanul	J-PARC	CSNS	Has experience in charactering residual stress (RS) using neutron scattering, proposed to measure RS also needs SANS and Reflectometer (?)	VG
Jungju Ryu	ANSTO	J-PARC	The applicant has done good work on the proposed system. The systems to be studied are interesting and of current interest	VG
GuoHao	ANSTO	J-PARC	Has some experience and knowledge on neutron powder diffraction	VG-G
Rahman Mahbubur Mohammad	ANSTO	J-PARC	Experience in study on thin films by complementary techniques.	VG-G
Taisen ZUO	J-PARC	J-PARC	Worked on development of neutron scattering instrument.Proposed to use SANS and neutron total scattering techniques.	VG-G
Putri Berlian Kesuma Witha	J-PARC	ANSTO	Has worked on making thin-films and studying properties.	G
Yanxu Wang	ANSTO		Worked on deformation behavior of steels using neutron diffraction. Propose to study deformation by diffraction imaging.	G

Name of Applicant	1st PFI	2nd PFI	Review Comments (6-2)	Grade
Jungju Ryu	ANSTO	J-PARC	Excellent proposal and very well prepared. Additionally, she has been working at a neutron facility and she has also already an experience to work together with an instrument scientist at ANSTO. This opportunity can help her further develop her career.	E
Song Tingting	J-PARC	CSNS	She already did several projects related with neutron/synchrotron techniques. Her proposal is very well written and good organized. I strongly recommend her to have a chance to conduct her experiments.	E
Yanxu Wang	ANSTO		Well written and good prepared. In his proposal, he mentioned only neutron imaging technique. But I think that the combination of imaging technique with residual stress method will help further.	VG
GuoHao	ANSTO	J-PARC	Nowadays the research in the secondary battery is very popular and many people are trying to study the fundamental principles by using neutron scattering method because in general, the light atoms such as Li or Na play a key role. But unfortunately, in his proposal, it is not clear why he wants to do neutron diffraction experiments and why this technique is necessary for his experiments. Actually, he should stress in his proposal the importance or necessity of neutron diffraction technique in his planned experiment.	G
Rahman Mahbubur Mohammad	ANSTO	J-PARC	I am not sure, if he had done experiments using neutron scattering technique before. According to his proposal, he will use many kinds of neutron techniques, for example, texture, residual stress and polarized neutron reflectometer and it is doubtful, if he can successfully finish his plans within 12 months. .	G
Taisen ZUO	J-PARC	J-PARC	His scientific plan is very risky and it requires an intense collaboration between his home institute and host facility and also ISIS. In his proposal, he wrote that unreleased version of Gudrun can read the data format of NOVA but he did not mention if he did his measurement already on NOVA. It is for me unclear why he proposes this experiment on NOVA but not at ISIS. If the purpose of his proposal is to solve the problem in his scientific plan, he should rather go to ISIS.	G
Haque Rezwanul	J-PARC	CSNS	I understand how much he really wants to be selected but his proposal in this year is exactly same as the proposal in last year. I am wondering whyhe did nothing in last year, although he eagers to conduct his experiments. I mean, for example, there is a possibility to apply for a beam time to conduct a planned experiment. Using this opportunity, he can fulfill his research plan partially and at least he should mention in his application what he has done already during the last 12 months.	F
Putri Berlian Kesuma Witha	J-PARC	ANSTO	In her proposal, she should give information on chemical compositions and physical properties of the samples in more detail. The proposal is too abstract.	F
Kuperkar C. Ketan (Received his PhD in 2010)	ANSTO	J-PARC	He finished his PhD work in 2008 and regrettably, he violated the guide lines. So, I think that he is disqualified. Thus, I do not evaluate his proposal.	

Name of Applicant	1st PFI	2nd PFI	Review Comments (6-3)	Grade
Haque Rezwanul	J-PARC	CSNS	1. Has first-author publications with good quality. 2. Has long-term experience in neutron. 3. The proposal is well-planned and organized. 4. Has been a research-independent scientist.	E
Jungju Ryu	ANSTO	J-PARC	1. Has first-author publications with good quality. 2. Has long-term neutron experience. 3. The proposal is well-organized.	E
Song Tingting	J-PARC	CSNS	1. Many publications with good quality. 2. Excellent proposal and well-panned experiments of using neutron scattering 3. Experiences in neutron	E
Taisen ZUO	J-PARC	J-PARC	1. Publications with good quality 2. Long-term experience in neutron scattering. 3. Proposal is well-organized and planned.	E
Kuperkar C. Ketan (Received his PhD in 2010)	ANSTO	J-PARC	1. Has many publications with good quality. 2. The proposal is well organized and more related to SANS study on micelles in solutions. 3. Should have short-term experience in using neutron. 4. Has ability to independently achieve research.	VG
GuoHao	ANSTO	J-PARC	1. Has few first-author publications. 2. Has neutron experience. 3. Unfortunately, the reasons why using neutron proposed for the materials are not strong.	G
Putri Berlian Kesuma Witha	J-PARC	ANSTO	1. No experience in neutron. 2. Not clearly emphasize why using neutron in the proposal	F
Rahman Mahbubur Mohammad	ANSTO	J-PARC	1. Has been an associate professor. 2. Unfortunately the candidate has no experience in neutron. 3. The proposal is not so clear in motivations of using neutron either.	F
Yanxu Wang	ANSTO		1. Only has fourpublications 2. not clearly state why neutron tomography is necessary for the proposed research topic.	F

Name of Applicant	1st PFI	2nd PFI	Review Comments (6-4)	Grade
Taisen ZUO	J-PARC	J-PARC	This proposed research includes not only the scientific purpose (polymer crystallization) but also the development of software for the total scattering data analysis. These purposes closely related with the instrumental selection, and no other facility is selected.	E
Haque Rezwanul	J-PARC	CSNS	The importance and feasibility of the planned experiments are clear enough even for non-expert reviewer.	E-VG
Song Tingting	J-PARC	CSNS	The purpose of research and the experimental plan are well-written.	E-VG
Jungju Ryu	ANSTO	J-PARC	The gel network formation controlled by crosslinking types could be important as a basic knowledge to develop functional materials.	VG
GuoHao	ANSTO	J-PARC	The purpose of the study and the strategy are clearly indicated, but I cannot understand why neutron scattering experiments are necessary.	VG-G
Jungju Ryu	ANSTO	J-PARC	The gel network formation controlled by crosslinking types could be important as a basic knowledge to develop functional materials.	VG
Rahman Mahbubur Mohammad	ANSTO	J-PARC	The importance of metal nitride and metal oxynitride could be understood, but the necessity of neutron experiments is not clear.	G-P
Kuperkar C. Ketan (Received his PhD in 2010)	ANSTO	J-PARC	He may misunderstand the choice of the instrument. If his choice is BL-06 in J-PARC, the importance to know the dynamical behavior should be described in detail.	F
Putri Berlian Kesuma Witha	J-PARC	ANSTO	She is considering Muon as a primary instrument. She might not understand the purpose of this program.	P

Name of Applicant	1st PFI	2nd PFI	Review Comments (6-5)	Grade
Putri Berlian Kesuma Witha	J-PARC	ANSTO	Putri Berlian Kesuma With a (36), Indonesian Institute of Science. The objective is to investigate the spin dynamics of materials, along with other physical and crystal structures. The experiment will be conducted by Muon Spectrometer / 4D Space Access Neutron Spectrometer at J-PARC, (Koichimura Shimomura). By accommodating muon / neutron techniques into the analysis, it may provide us with the framework to address the key challenges of understanding emergent behaviors at oxide interfaces, magnetic properties, and spin dynamics of the functional oxide thin films.She is coming from non nuclear Institution, but willing to work with neutron/muon technique. It will meet the purpose of the AONSA YRF, for promoting neutron science to wider users.	E
GuoHao	ANSTO	J-PARC	Guo Hao (31) from China Institute of Atomic Energy.The purpose of this study is to understand the effect of Na content and transition metals composition on crystal structure of P2-type layered oxides. Using HRPD at ANSTO, or Ibaraki Spectrometer at J-PARC. Stay for 6 months. He experiences on working at the neutron scattering laboratory, during his PhD, at the CIAE. Published good international journals for the last five years.	V G
Jungju Ryu	ANSTO	J-PARC	Jungju Ryu (41), Neutron Science Center, KAERI. This study explores the internal structures coordinative bonds.The experiment will use Bibli instrument at ANSTO with Anna Sokolova. She has done much experience on neutron scattering.	VG
Song Tingting	J-PARC	CSNS	Song Tingting (32), RMIT, Australia. TO study strengthening mechanism of additively manufactured high-performance Ti-alloys via in situ neutron diffraction studies by neutron diffraction (BL-19, JPARC), Stefanus Harjo.She is freshly graduated from RMIT, and has experiences on X-ray instrument at Australian Synchoton.	VG
Haque Rezwanul	J-PARC	CSNS	Dr.Haque (39), University of the Sunshine Coast. The aim of this research is to establish the operational boundaries for the self-piercing riveting (SPR) of high strength steels using a combination of experiments and finite element (FE) modeling. He chose JPARC (Raden/Takumi) working with Takenao Shinohara-San Stress measurement on those rivets is impossible by using KOWARI. The pulsed neutron available at RADEN can be overcome this scenario.The second choise is CSNS (SANS; Reflectometer). He needs to explain more why those second instruments are important for this study. He sent the same proposal for YRF 2018 He has shown expertise in neutron imaging, magnetic and engineering. He has made good proposal for the experiment with scientific background.	G
Kuperkar C. Ketan (Received his PhD in 2010)	ANSTO	J-PARC	Kuperkar C. Ketan (39),SVNIT, India. The objective of this collaborative plan observed when antioxidant molecules are solubiliced in miscelles. The experiment BL-6 to study dynamic structure factor.He has good experience on neutron scattering, but unfortunately does not fulfill the requirements (8 years max after completion his PhD)	G
Taisen ZUO	J-PARC	J-PARC	Taisen ZUO (36) Institute of High Energy Physics, China. To firmly determine the structure of the polymer in the IC, neutron scattering, like SANS and neutron total scattering equipped with the technique of isotope labeling, is the best choice. It is a unique technique for the direct observation of a single chain among the matrix of other chains. NOVA, JPARC (Toshiya OTOMO).The application is not signed by applicant.	G
Rahman Mahbub ur Mohammad	ANSTO	J-PARC	Dr. Rahman has excellent research experience with many publications, though mostly as co-authors. He seems have good networking. His research mainly on the magnetic phase transition, therefore he applied for experiment at ANSTO and JPARC, but did not mention specifically the instrument. He sent similar proposal last year.	F
Yanxu Wang	ANSTO		Yanxu Wang (29), NIMS, Japan. Study Micromechanical behavior of Luder propagation in high strength steel. Using the diffraction imaging to overcome the strain/stress by instrument DINGO, ANSTO (U.Garbe).The proposal is not completed. The publications are less than five	F

Name of Applicant	1st PFI	2nd PFI	Review Comments (6-6)	Grade
GuoHao	ANSTO	J-PARC	Excellent track record in publications considering he is 2019 graduate. Top 3 publications in the high impact journals. The proposal have a strong scientific and industrial application. The batteries is a hot topics and the proposal is suited for powder diffraction at ANSTO and J-Parc	E
Jungju Ryu	ANSTO	J-PARC	Experienced neutron user with huge potential. Excellent track record in publications. All top 5 publications in the high impact journals. The proposal have a strong scientific and industrial impact and is well suited for SANS instrument such as Bilby at ANSTO	E
Song Tingting	J-PARC	CSNS	Unexperienced neutron user with huge potential. Excellent track record in synchrotrons grants and publications. All top 5 publications in the high impact journals. The proposal have a strong scientific and industrial impact and is well suited for strain scanner like Takumi instrument.	E
Haque Rezwanul	J-PARC	CSNS	Expienced neutron user with big potential. Very good track record in publications considering opportunities. Top 3 publications in the high impact journals. Very interesting proposal for Bragg Edge imaging available in J-Parc	VG
Putri Berlian Kesuma Witha	J-PARC	ANSTO	Unexperienced neutron user with big potential. Excellent track record in publications considering opportunities. All top 5 publications in the high impact journals. The proposal is not as descriptive dure to lack of experience but is very interesting and is suited for Muon Spectrometer / 4D Space Access Neutron Spectrometer at J-Parc	VG
Taisen ZUO	J-PARC	J-PARC	Every good candidate with lots of instrumentation experience. Top 5 publication in very good journals. Interesting proposal well suited for J –Parc SANS instruments.	VG
Rahman Mahbubur Mohammad	ANSTO	J-PARC	Unexperienced neutron user with potential, but unrealistic expectations which is most likely due to his lack of experience. Good publication record. Top 5 in high ranked journal. The candidate need better literature review on what is possible and achievable for the thin coatings especially for stress and texture with neutrons. Neutron school is recommended.	G
Yanxu Wang	ANSTO		Good candidate with good 3 publications. Interesting industrially relevant project, however the experiment he proposing is design for TOF strain scanner like Takumi which ANSTO does not have. No details in the proposal how he want to use imaging beamline for his research.	F/G
Kuperkar C. Ketan (Received his PhD in 2010)	ANSTO	J-PARC	Very experienced user with a great track record. However in my opinion should not be considered as he does not meet the criteria (over 8 years since his PhD)	N/A

AONSA YRF 2020-Review Comments

Name of Applicant	1st Priority Facility Instruments	2nd Priority Facility Instruments	Review Comments
Guo Hao	ANSTO	J-PARC	He has some experience and knowledge on neutron powder diffraction. But should stress in his proposal the importance or necessity of neutron diffraction technique in his planned experiment.
Haque Rezwanul	J-PARC	CSNS	The proposal is well-planned and organized. He has long-term experience in neutron and has made good proposal for the experiment with scientific background. But, he sent the same proposal for YRF 2018.
Jungju Ryu	ANSTO	J-PARC	She has done good work on the proposed system which is interesting and of current interest. Her first-author publications are good quality. The proposal is well-organized. And she has long-term neutron experience.
Kuperkar C. Ketan	ANSTO	PARC	He has good experience on neutron scattering. But he finished his PhD work in 2008 and violated the guide lines regrettably.
Putri Berlian Kesuma Witha	J-PARC	ANSTO	She has worked on making thin-films and studying properties. But no experience in neutron. And not emphasize why using neutron in the proposal.
Rahman Mahbub ur Mohammad	ANSTO	J-PARC	He Dr. Rahman has excellent research experience with many publications, though mostly as co-authors. He seems have good networking. His research mainly on the magnetic phase transition, but the necessity of neutron experiments is not clear.
Song Tingting	J-PARC	CSNS	She already did several projects related with neutron/synchrotron techniques. The purpose of research and the experimental plan in her proposal are very well written and good organized.
Taisen ZUO	J-PARC	J-PARC	This proposed research includes not only the scientific purpose (polymer crystallization) but also the development of software for the total scattering data analysis. However， his scientific plan is a little risky and it requires more collaboration.
Yanxu Wang	ANSTO		He worked on deformation behavior of steels using neutron diffraction. But only has four publications and not clearly state why neutron tomography is necessary for the proposed research topic.

AONSA YRF 2020-Rankings

Name of Applicant	1st PFI	2nd PFI	Grade							Note
Song Tingting	J-PARC	CSNS	E	E	E	E-VG	VG	E	4E+1E-VG+1VG+0VG-G+0G+0G-P+0F+0P	**1**
Jungju Ryu	ANSTO	J-PARC	E	VG	E	VG	VG	E	3E+0E-VG+3VG+0VG-G+0G+0G-P+0F+0P	**2**
Taisen ZUO	J-PARC	J-PARC	G	VG-G	E	E	G	VG	2E+0E-VG+1VG+1VG-G+2G+0G-P+0F+0P	**3**
Haque Rezwanul	J-PARC	CSNS	F	VG	E	E-VG	G	VG	1E+1E-VG+2VG+0VG-G+1G+0G-P+1F+0P	**4**
Guo Hao	ANSTO	J-PARC	G	VG-G	G	VG-G	VG	E	1E+0E-VG+1VG+2VG-G+2G+0G-P+0F+0P	**5**
Putri Berlian Kesuma Witha	J-PARC	ANSTO	F	G	F	P	E	VG	1E+0E-VG+1VG+0VG-G+1G+0G-P+2F+1P	**6**
Kuperkar C. Ketan	ANSTO	PARC		E-VG	VG	F	G	N/A	0E+1E-VG+1VG+0VG-G+1G+0G-P+1F+0P	**7**
Yanxu Wang	ANSTO		VG	G	F	VG-G	F	F/G	0E+0E-VG+1VG+1VG-G+2G+0G-P+2F+0P	**8**
Rahman Mahbubur Mohammad	ANSTO	J-PARC	G	VG-G	F	G-P	F	G	0E+0E-VG+0VG+1VG-G+2G+1G-P+2F+0P	**9**

YRF 2020-Top 3 candidates

Tingting Song

1st PF： **J-PARC**-BL19 Beamline

2nd PF： **CSNS**-General purpose Powder Diffractometer

PT:

Jungju Ryu

BILBY-**ANSTO** :1st PF

TAIKAN-**J-PARC** 2nd PF

:PT

Taisen Zuo

1st PF： **J-PARC**-NOVA

2nd PF： **J-PARC**-TAIKAN

PT：

More people want to apply: Teng Lu

HTMLメールをテキスト化しました。

HTML mail has been converted to text.

==========

Dear officer

I am the postdoctoral research fellow who currently works in the Australian National University.

I am quite interested in the AONSA Young research fellow however, I found the deadline for the application has already past. I just wonder do you still accept any applications because I found last year the deadline is the end of September.

I am looking forward to your reply

Best Regards

Teng Lu

Postdoctoral Fellow

On 2019/09/12 15:51, 孙立梅 wrote:

Dear Misono,

Thank you very much for your email.

I think he can try. But it is hard. And If he is sure he wants to apply for YRF 2020, please let me know and tell him to submit his application information as soon as possible.

Best regards,

Limei

Dear Limei,

I have just received following email from Dr. Teng Lu.
Would you please contact him in order to tell him the dead line of the apply?

Best regards,
Misono

AOCNS 2019 YRF session

发件人： Hsiung Chou <hchou@mail.nsysu.edu.tw>
日期： 2019年10月4日周五 傍晚5:18
收件人： "AONSA Prof. Brendan Kennedy" <brendan.kennedy@sydney.edu.au>, "Prof. CHEN Dongfeng 陳東風" <dfchenciae@126.com>, jaehc@korea.ac.kr
抄送： 孫亞賢 <yssun@cc.ncu.edu.tw>, "Wu, Chun-Ming [吳浚銘]" <wu.cm@nsrrc.org.tw>, 林克偉 <kwlin@dragon.nchu.edu.tw>
主 题： Re: AOCNS2019 Statistica and YRF session

Deal Brendan, Dongfeng and Jae-Ho:

I am afraid my last mail did not successfully go to your mail boxes that's why I did not receive any response. Now I send it again via NSYSU mailing system, hope no problem this time.

Up to now we estimate there are ~180 talks and ~135 posters.
If every one can attend we have nearly 380 attendee (not including part of Taiwan students and company representatives for exhibitions)

I have tried to contact with all these YRFs. Few addresses are not valid anymore and some have no response. One response from Japan said that he could not attend. I am afraid that most of them has left their original institutions. I don't know how to track them.
From the list below, most of them are from China, two from Korea, and one from Australia , could you find a way to ask their original institution to make the contact?

With this situation and due to the time slots are very tight and people need to have social time to discuss

AOCNS 2019 YRF session

发件人：詹晓芝<zhanxiaozhi@ihep.ac.cn>

收件人：孙立梅<limei-sun2000@163.com>

时　间：2019年10月07日 16:43 (星期一)

孙老师，您好！

我是詹晓芝，我收到之前的邮件了，但是还没有来得及回复。非常感谢邀请，但我估计无法参加这次会议了。一方面，我们这边的运行需要人手；另一方面，我的YRFs是去韩国的HANARO，但是后来因为那边不能开堆运行，且个人原因时间上安排不过来，对方也不接受推迟出发，最终没有去成韩国，所以实际上很遗憾地并没有成行。再次感谢邀请！希望以后能有机会再去学习。

祝好！

詹晓芝

AONSA

Thank you very much !

YRF-Tingting Song

AONSA

Application Form
AONSA Young Research Fellowship

AONSA Office
J-PARC Center, JAEA
2-4 Shirakata-Shirane, Tokai
Ibaraki, 319-1195, Japan
Phone: +81-29-284-3752
Fax: +81-29-284-3660
http://www.aonsa.org

APPLICANT'S PERSONAL INFORMATION				
Name	Song Tingting			
Date of Birth	02.10.1987	Age	32	
Nationality	Chinese	Sex	Female	
Mailing Address	4/21 Albert St, Brunswick East, VIC 3057 Australia			
Telephone	Office: +61 3 9925 4830 Mobile: +61 424 189 782	Email	tingting.song@rmit.edu.au	

APPLICANT'S CURRENT AFFILIATION			
Home Institute	RMIT University	Department	School of Engineering
Position	Postdoc	Address	Building 96, RMIT University, 58 Cardigan St, Carlton VIC 3053 Australia
SUPERVISOR at HOME INSTITUTE			
Name	Ma, Qian	Position	Distinguished Professor
Telephone	Office: +61 3 9925 4491	Email	ma.qian@rmit.edu.au

EDUCATIONS			
Name of University(Country)	Department / Major Subjects	Start - Complete Dates	Degree
RMIT University (Australia)	School of Engineering/ Manu &Mech Eng	May 2014-Feb 2018	PhD
The University of Queensland (Australia)	School of Mechanical and Mining Engineering/ Materials Eng	July 2012-May 2014	PhD
Shanghai University (China)	School of Materials Science and Engineering/ Metallurgy	Sep 2009 – April 2012	MPhil
Shandong University (China)	School of Materials Science and Engineering/ Metallurgy	Sep 2005 – June 2009	Bachelor

EMPLOYMENT HISTORY

PREFERED FACILITIES to VISIT			
Name of Facility	Neutron Instruments Needed	Preferred Start - Complete Dates	Priority
J-PARC	BL19 beamline	1 Apr 2020 – 1 Nov 2020	1st
CSNS	General Purpose Powder Diffractometer	1 Apr 2020 – 1 Nov 2020	2nd

PROSPECTIVE COLLABORATOR at the 1st PRIORITY NEUTRON FACILITY			
Name	Harjo, Stefanus	Position	PhD, Beamline Scientist
Research Area	Strengthening mechanism understanding of metallic materials using in-situ Neutron Diffraction		
Telephone	Office:	Email	stefanus.harjo@j-parc.jp

Contact Persons for Information about the Neutron Facility and Research Opportunities

- J-PARC (Japan): Prof.Toshiji Kanaya, Email:tkanaya@post.kek..jp
- OPAL at ANSTO (Australia): Dr. Jamie Schulz, Email: jvs@ansto.gov.au
- CSNS and CARR (China): Dr. Lin Li, Email: lilin2009@ihep.ac.cn

PUBLICATIONS (Up to 5 Publications)	
1	T. Song, M. Yan, N.A.S. Webster, M.J. Styles, J. Kimpton, M. Qian, "In-situ and ex-situ synchrotron X-ray diffraction studies of microstructural length-scale controlled dealloying mechanisms", Acta Materialia, 168, 376-392, 2019
2	T. Song, M. Yan, M. Qian, "The enabling role of dealloying in the creation of specific hierarchical porous metal structures-A review", Corrosion Science, 134, 78-96, 2018
3	T. Song, M. Yan, Z. Shi, A. Atrens, M. Qian, "Creation of bimodal porous copper materials by an annealing-electrochemical dealloying approach", Electrochimica Acta, 164, 288-296, 2015
4	T. Song, Y. Gao, Z. Zhang, Q. Zhai, "Microstructure and phase evolution during the dealloying of bi-phase Al-Ag alloy", Corrosion Science, 68, 256-262, 2013
5	T. Song, Y. Gao, Z. Zhang, Q. Zhai, "Dealloying behavior of rapidly solidified Al-Ag alloys to prepare nanoporous Ag in inorganic and organic acid media", CrystEngComm, 13, 7058-7067, 2011

Note: A full list of publications should be included in Applicant's CV.

YRF-Tingting Song

FACULTY OF SCIENCE AND ENGINEERING
A/Professor Tracy Rushmer
Department of Earth and Planetary Sciences
Associate Dean Higher Degree Research
Macquarie University
NSW 2109 Australia
T: +61 (2) 9850 8566
F: +61 (2) 9850 7733
Tracy.Rushmer@mq.edu.au

MACQUARIE University

TO: The Selection Committee
RE: AONSA Young Research Fellowship 2020

30th August, 2019

Dear Selection Committee,

As President of the Australian Neutron Beam User's Group, it is my pleasure to send this letter and offer my support to Dr. Tingting Song from RMIT. She is an applicant for the AONSA Young Research Fellowship for 2020.
Dr. Song has been an active user of x-ray instruments at the Australian Synchrotron. As a result, she is now wanting to expand her experience by spending time interacting with experts on the BL19 beamline at J-PARC in Japan and at CSNS in China to learn new skills and gain new expertise in these excellent facilities. The ANBUG Executive hopes that this active young researcher will be provided this opportunity. This will not only be of value for her research career, but also will benefit our Engineering and Manufacturing research community in Australia.

Sincerely,

A/Prof Tracy Rushmer
Macquarie University
President, Australian Neutron Beam Users' Group

Letter of support from President of the home neutron society or a representative of home neutron community.

YRF-Tingting Song

RMIT UNIVERSITY

Dr Ma Qian
Distinguished Professor
Centre for Additive Manufacturing
School of Engineering
Royal Melbourne Institute of Technology (RMIT University)
Melbourne, VIC 3000, Australia
Email: ma.qian@rmit.edu.au
Tel.: 61 3 9925 4491
Mobile: 0435573103
http://www.rmit.edu.au/staff/ma-qian

31 August 2019

To Whom It May Concern

RE: Dr Tingting Song's application for an AONSA Young Research Fellowship 2020

This letter is provided in support Dr Tingting Song's application for an AONSA Young Research Fellowship 2020.

My research group has been a keen user of the Neutron and Synchrotron radiation research tool. We started our Neutron and Synchrotron experience with the Spring-8 in Japan in 2010. Since then we have had access to the Australian Synchrotron, ANSTO for 192 hours, which have resulted in several quality publications (three more papers are being drafted for submission) and assisted in the completion of three quality PhD theses:

- T. Song, M. Yan, N.A.S. Webster, M.J. Styles, J.A. Kimpton, M. Qian, In-situ and ex-situ synchrotron X-ray diffraction studies of microstructural length scale controlled dealloying, Acta Materialia 168 (2019) 376-392.
- M. Yan, M.S. Dargusch, C. Kong, J.A. Kimpton, S. Kohara, M. Brandt, M. Qian, In Situ Synchrotron Radiation Study of TiH2-6Al-4V and Ti-6Al-4V: Accelerated Alloying and Phase Transformation, and Formation of an Oxygen-Enriched Ti4Fe2O Phase in TiH2-6Al-4V, Metallurgical and Materials Transactions A 46(1) (2015) 41-45.
- M. Yan, Y. Liu, G. B. Schaffer, M. Qian, "In-situ synchrotron radiation to understand the pathways for the scavenging of oxygen in commercially-pure Ti and Ti-6Al-4V by yttrium hydride", Scripta Materialia, 2013, vol. 68, 83–86.
- 3 PhD theses: Tingting Song (2016); Jaiyoung Choi (2019), Carmelo Tridani (2019)

Dr Song completed her PhD study in Feb 2016 at RMIT University and is currently employed as a research fellow at RMIT under my supervision. Dr Song is a highly promising early career researcher. The access to the Neutron and Synchrotron facility has played a significant role in the research achievements she has made so far. Her experiences with the Neutron and Synchrotron facilities over the last five years are summarised as follows:

- Tingting started exploring the Neutron and Synchrotron technology during her PhD study from 2013 to 2016. As the lead investigator, she utilised a total of 96 hours of beamtime at the Powder Diffraction Beamline, Australian Synchrotron, ANSTO.
- She carried out experiments at the High Pressure and High Temperature Beamline at Spring-8, Japan (ID: 37325, 15 shifts from 8 May to 12 May 2017).
- She attended the 2014 Chelron School organized by AOFSRR (Asia-Oceania Forum for Synchrotron Radiation Research) from 23/09 to 2/10, 2014 with eight other young researchers to develop data analysis skills for Neutron and Synchrotron radiation.
- She has also attended the workshop organized by Bruker related to Rietveld Refinement Analysis (2-5 Dec 2012) at The University of Adelaide and Line Profile and Microstructure Analysis using Powder Diffraction (10 Feb 2017) at the National Centre for Synchrotron Science, Australian Synchrotron.
- She has presented her synchrotron studies at several symposia including the 6th Conference of the Combined Australian Materials Societies (CAMS2016) and two Australian Synchrotron, ANSTO User Meetings (2014 and 2016).

Dr Tingting Song's current research focuses on 3D printing of novel high-strength steels and Ti alloys, funded by an Australian Research Council Discovery Project. She has made excellent progress in new alloy design for metal 3D printing, which deals with a range of solid state transformation phenomena. The AONSA Young Research Fellowship 2020 will enable her to make an important step forward in uncovering the detailed phase transformation processes in these 3D-printed novel metallic alloys via in-situ neutron diffraction experiments at the BL-19 beamline, Japan Proton Accelerator Research Complex (J-PARC). In addition, Dr. Song lectures on metal additive manufacturing and the basic phase transformations in metals involved for 12 hours each semester at RMIT University – the Fellowship will be immediately useful to improve the content of her teaching on phase transformations for the benefit of many students here. Finally, the RMIT Centre for Additive Manufacturing is a premier centre on 3D printing both nationally and globally on a university scale. The Fellowship can be instrumental to many early career researchers at the Centre for pursuing more in-depth fundamental research on metal 3D printing. It can also initiate good future collaborations between the RMIT Centre for Additive Manufacturing and overseas research organisations in the field including J-PARC which hosts the leading technologies in Neutron Radiation.

In summary, the AONSA Young Research Fellowship will (i) have significant implications for Dr Song's current research activities and future career development; (ii) benefit many students here at RMIT through Dr. Song's lectures on phase transformations, (iii) encourage more young researchers at the RMIT Centre for Additive Manufacturing to pursue fundamental studies on metal 3D printing and (iv) start international collaborations between RMIT Centre for Additive Manufacturing and J-PARC. Therefore, please kindly offer your supporting hands to this young researcher.

Thank you.

Yours Sincerely,

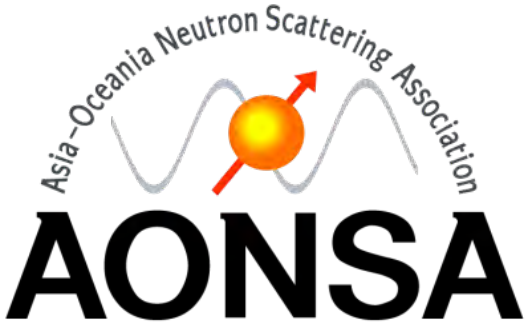
Ma Qian

Distinguished Professor
Deputy Director, RMIT Centre for Additive Manufacturing
RMIT University

Elsevier Series Editor for Additive Manufacturing
Associate Editor for Acta Materialia and Scripta Materialia

Recommendation letter from a supervisor at home institute

AONSA EC Meeting Financial Report



2019-05-25

MianYang

2019-011-12

AONSA Annual fee - by category	
Category	Income (JPY)
Previous Balance	9,071,333
Annual fee	216,020
Donation	0
interest	39
Total amount	9,287,392
Category	Expense (JPY)
10th Neutron School	328,860
3rd AOCNS	543,650
AYRF 2019	119,087
EB charge	21,600
Bank handling charge	17,500
Total amount	1,030,697
Total Balance	8,256,695

Annual Fee

NSSI

Donations: (five donations in 1st ½)

AYRF: Shaofei Wang

EB charge (JPY4320/month):
internet banking monthly charge

$75,000

2019-011-12

AONSA Prize Fund				
Date (Y/M/D)	Item	Income (JPY)	Expense (JPY)	Balance (JPY)
2018/11/08	Previous balance in 2017	3,360,454		3,360,454
2018/02/18	Interest	12		3,360,466
2019/05/17	AONSA prize USD□ 5000-2000 Goods□ 47548 handling fee + msk fee		393345	2,967,121
	Total amount	2,967,121	0	2,967,121

□ $26970

AONSA future budge plan

Income

AONSA Annual Fee:	$14000	
Interest:	few	
Donation:	$4000	

Expense

YRF	$~6000	
11th Neutron Sch	$~3000	
EB charge:	$ ~40	JPY4320/month x 1 month
Bank Handling:	$ ~100	dep. on handling process

Financial Balance of 2019-05-CMRR

2019-05-20

AONSA Annual fee - by category	
Category	Income (JPY)
Previous Balance	7,963,839
Annual fee	1,322,881
Donation	880,770
interest	34
Total amount	10,167,524
Category	Expense (JPY)
Donation	880,770
AYRF	157,319
EB charge	25,920
Bank handling charge	25,188
Domain Maintenance	6,994
Total amount	1,096,191
Total Balance	9,071,333

Annual Fee

JSNS, ANBUG, CNSS, TWNSS, INSS, KNBUA, (NSSI processing 4/5)

Donations:

JSNS ($2000), ANBUG($2000), CNSS($2000), TWNSS($1000), KNBUA($1000)

Donation: → AONSA Prize Fund

AYRF: Wang Hay Kan, Hua Yang, Jin Peng

EB charge (JPY4320/month): internet banking monthly charge

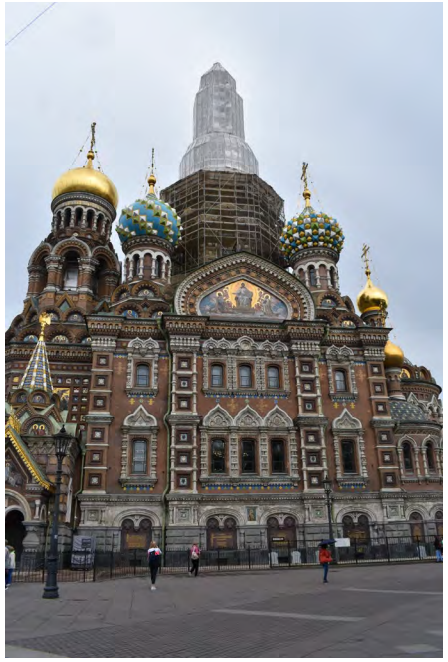
Domain Maintenance: annual AONSA domain maintenance

$81,956

AONSA Prize Fund				
Date (Y/M/D)	Item	Income (JPY)	Expense (JPY)	Balance (JPY)
2018/11/08	Previous balance in 2017	2,479,674		2,479,674
2018/02/18	Interest	10		2,479,684
2019/05/17	Transfer from OFFICE account (Donation & AONSA Prize Fund 2019)	880,770		3,360,454
	Total amount	3,360,454	0	3,360,454

□ $30,360

ECNS July 2019



AONSA School HANARO

ANSTO Diffraction School


中核集团
中国原子能科学研究院
CHINA INSTITUTE OF ATOMIC ENERGY

Moving Forward

- AONSA Prize
- Young Research Fellows
- EC Indonesia around May 2020
- School CSNS October 2020 (around Oct 12 for 6 days) to coincide with EC/FDM
- Diversity
- ICNS 2021 – Currently working with NSSA and ENSA to form the International Program Committee
- International Neutron Scattering Association?
- AOCNS 2023
- When JRR3 restarts in Feb 2021 AONSA should do something.

Neutron Instrumentation and Innovation Prize

- The European Neutron Scattering Association hereby announce the **inauguration of a new prize**, the **Neutron Instrumentation and Innovation Award**. The prize will be awarded to an early career scientist or engineer in recognition of ground-breaking contributions in neutron instrumentation or method innovation, thereby enabling advances in neutron science and technology. This includes realization of new neutron instruments, pioneering of neutron science in new fields of applications, invention of new neutron techniques or development of new analysis methods and software, as well as other major contributions **enabling advancement of neutron science**. Early career typically means 3-10 years after a PhD, but both younger and more senior candidates may be considered. The prize amount (2072 CHF) is generously sponsored by the company Mirrotron, a leading manufacturer of neutron instrumentation components. The Prize will awarded biennially (synchronized with the European or international Neutron Scattering Conferences).
- **Call for Nominations**
- European scientists as individuals or on behalf of a Division, Section or Group may submit nominations for the 2019 Neutron Instrumentation and Innovation Award of the European Neutron Scattering Association (ENSA). Nominations should include a nomination letter motivating the award, a brief curriculum vitae of the candidate, a description or publication describing the nominated work. Letters of support may be included.

Diversity IUCr

- The International Union of Crystallography strives to achieve gender balance in all its institutions and activities bearing in mind other diversity needs and its existing obligations to geographic and academic discipline representation where appropriate.
- To achieve this aim the IUCr will adopt procedures to promote gender balance in respect of all of its activities including selection of candidates for positions on its Committees and Commissions. Those seeking support from the Union for Congresses, meetings, workshops and schools will also have to demonstrate their efforts to address gender balance.

Diversity APS

- The American Physical Society (APS) believes full participation by everyone, regardless of gender, is important to the health and future achievements of our discipline. The number of women in physics remains disappointingly low, and biases persist. The APS urges its members, physics leaders and policy makers to take action to improve the recruitment, retention and treatment of women in physics at all levels of education and employment.

Diversity RACI

- The RACI inclusion and diversity policy is available on the conference website.
- 30% of organising committee must be female.
- A minimum of 30% of all plenary, keynote and invited speakers must be female.
- 40% of session chairs must be female.
- Anonymous participant diversity tracking must be integrated into the registration process (gender, non-English speaking background, Aboriginal or Torres Strait Islander, Disability).
- Targets must be set and the final report must include a section on performance to target.

- That for all RACI awards:

All RACI awards will be judged on opportunity and performance evidence. Candidates will be encouraged to put in a statement on opportunity and performance evidence.

All award committees will have both male and female representation.

Diversity Proposal

- AONSA strives to achieve gender balance in all its institutions and activities bearing in mind other diversity needs and its existing obligations to geographic and academic discipline representation where appropriate.
- AONSA award committees will have both male and female representation.
- AONSA will ensure reasonable representation of the AOCNS organizing committee will be female and that plenary, keynote and invited speakers together with session chairs will include females.
- Those seeking support from AONSA for, meetings, workshops and schools will have to demonstrate their efforts to address gender balance including targets for gender equality

INTERNATIONAL CONFERENCE ON NEUTRON SCATTERING 2021

Buenos Aires, Argentina

4 – 8 July, 2021

Organised by

Asociación de Técnicas Neutrónicas de Argentina

Argentine Neutron Techniques Association

Endorsed by

Comisión Nacional de Energía Atómica

Argentine Atomic Energy Commission

Ministerio de Educación, Cultura, Ciencia y Tecnología
Presidencia de la Nación

Secretary of Science and Technology

Contact: granada@cnea.gov.ar

ICNS – International Program Committee

- Korea
  - Jae-Ho Chung (Korea Univ., Korea) Hard condensed matter
  - Sung-Min Choi (KAIST Korea) Soft Condensed matter
- Japan
  - Mitsuhiro Shibayama (Univ. of Tokyo, Japan) Soft Condensed Matter
  - Taku Sato
- China
  - Dongfeng Chen (CIAE., China)
  - Fengwei Wang (CSNS, China)
  - Jinbo Yang (PKU)
  - Xun-Li Wang (City Univ. of Hong Kong, China) Engineering materials
- Taiwan
  - Ko-Wei Lin (National Chung Hsing University) - Magnetic Materials
- India
  - S M Yusuf (BARC)
- Indonesia
  - Evvy (Batan) Soft Condensed Matter - Female
- Australia
  - Brendan Kennedy (Univ. of Sydney, Australia) – Crystallography
  - Anna Paradowska (Univ. of Sydney Australia) – Engineering materials– Female
  - Helen Maynard-Casley (ANSTO Australia) – High Pressure - Female
  - Rachel White (ANSTO Australia) Sample Environment - Female

Procedures to Decide the Host and Location of Asia-Oceania Conference on Neutron Scattering

- **1. Basic Principles**

a. The host and location of AOCNS will be circulated in the Asia-Oceania Region.

b. Under normal circumstance, the host and location of AOCNS will be decided 4 years ahead of time and will be announced in the AOCNS just before it.

c. The host and location of AOCNS will be decided in the AONSA EC meeting after reviewing the conference proposals submitted by neutron societies in the Region.

d. Both paying regular member societies and non-paying observers can submit proposals.

- **2. Procedure**

a. The call for proposal should be announced one year ahead of the currently planned AOCNS.

b. Conference proposals should be submitted to Secretary of AONSA by the application deadline specified in the call for proposals. Under normal circumstance, the deadline is one month before the AONSA EC meeting. Only one proposal is allowed for each society.

c. The host and location of next AOCNS will be decided in the EC during AOCNS where candidates should present their proposals with enough information and the results should be announced at the end of the conference.

- **3. Voting Procedure**

a. 15 minute Presentation for each proposal at the EC.

b. Q & A (5-10 minutes depending on time available for this process).

c. c. Secret voting by the EC members.

i) Select the host based on the rank of votes.

ii) If none of proposals have half of votes or more, we vote for top 2 proposals again.

AOCNS 2019

3rd Asia-Oceania Conference on Neutron Scattering

第三屆亞洲及大洋洲中子散射會議

Date & Venue

16-21 November 2019

Howard Beach Resort Kenting

Statistics

Supporters

The 3rd AOCNS will be held in Kaohsiung City, Taiwan

Venue: the Howard Beach Resort Kenting, Kaohsiung City, Taiwan

SUPPORTERS

Dragon Sponsors

MOST 科技部 Ministry of Science and Technology

國際貿易局 BUREAU OF FOREIGN TRADE

Phoenix Sponsors

LLC "Neutron Technologies"

Companies:

Reuter-Stokes

MIRRO-TRON THE WORLD OF NEUTRON

Canon CANON ELECTRON TUBES & DEVICES CO., LTD.

Panasonic

Quantum Design TAIWAN

JRR-3

National University of Tainan Research and Development Center for Lithium-ion Battery

中鋼碳素 CHINA STEEL CHEMICAL

Rigaku Leading With Innovation

Societies:

AONSA

TAIWAN NEUTRON SCIENCE SOCIETY M&D User Facility TWNSS

ANBUG AUSTRALIAN NEUTRON BEAM USERS GROUP

inss

JSNS

KNBUA

NEUTRON SCATTERING SOCIETY OF INDIA

Universities and Research Institute:

國立中興大學 National Chung Hsing University

中原大學

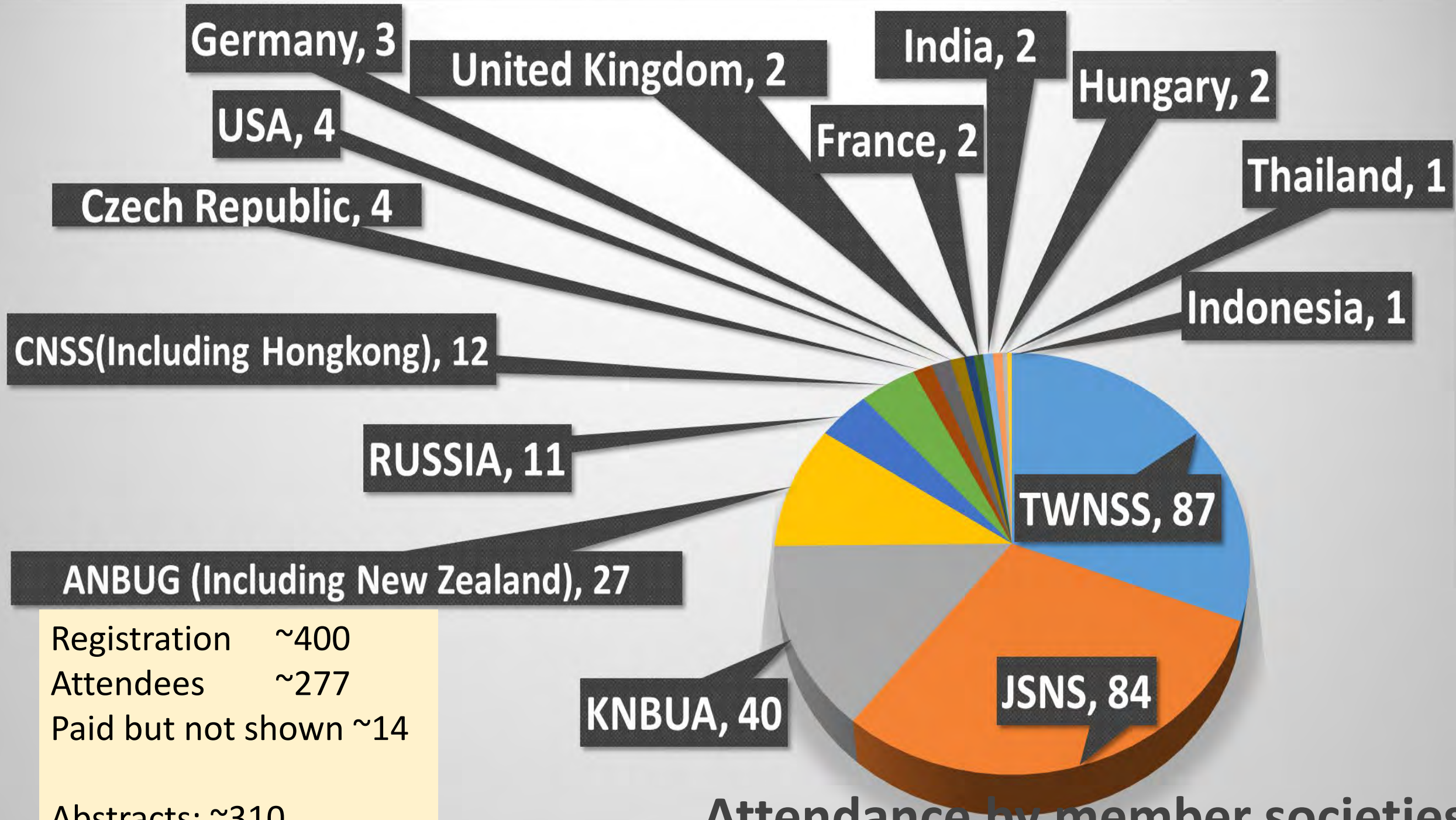
國立屏東大學 National Pingtung University

1896

淡江大學 TAMKANG UNIVERSITY

NSRRC

原子能 INER 核研所

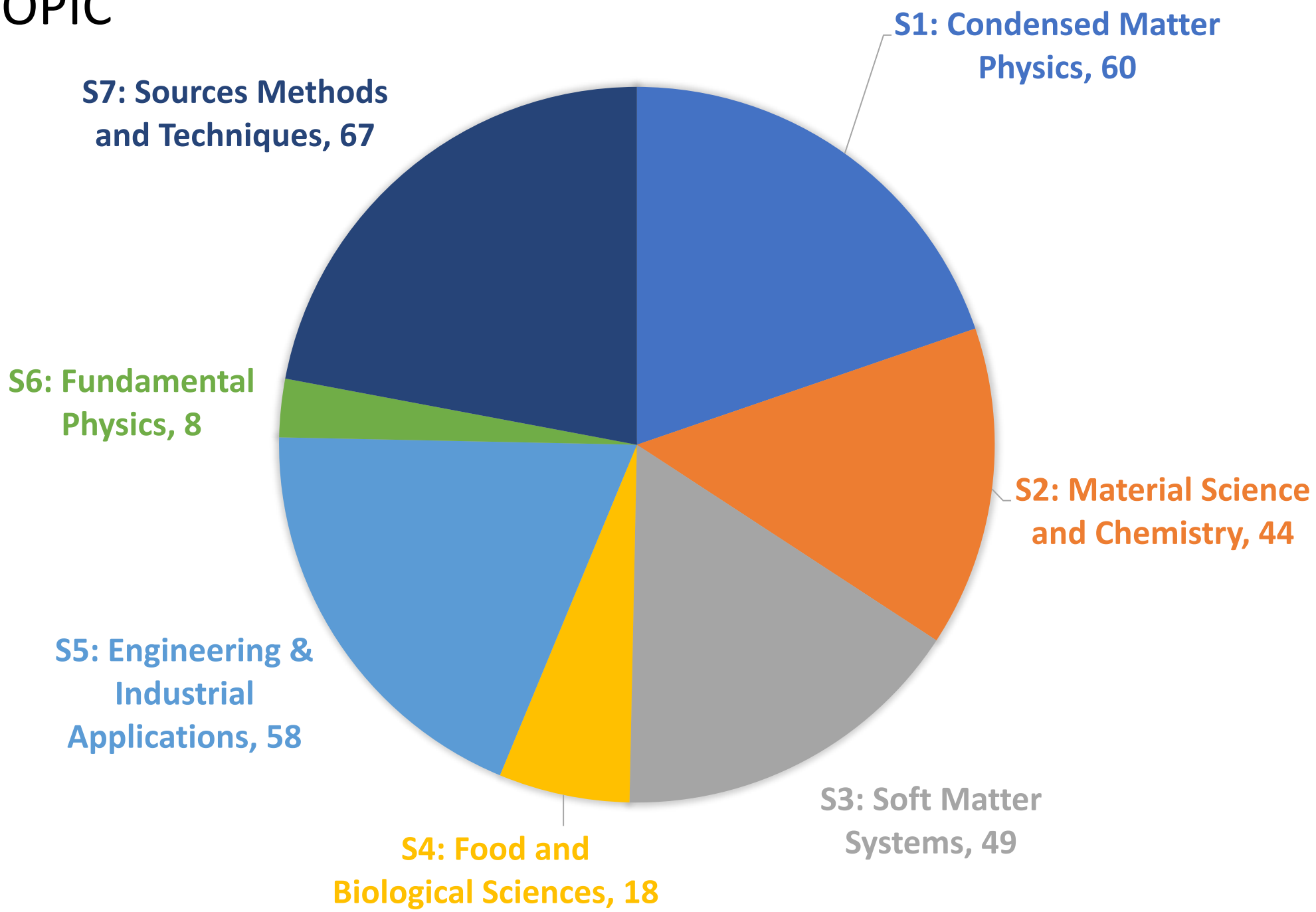


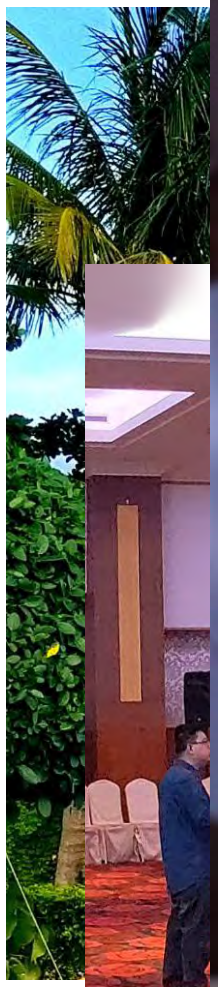
Registration ~400
Attendees ~277
Paid but not shown ~14

Abstracts: ~310

Attendance by member societies

ABSTRACTS BY TOPIC

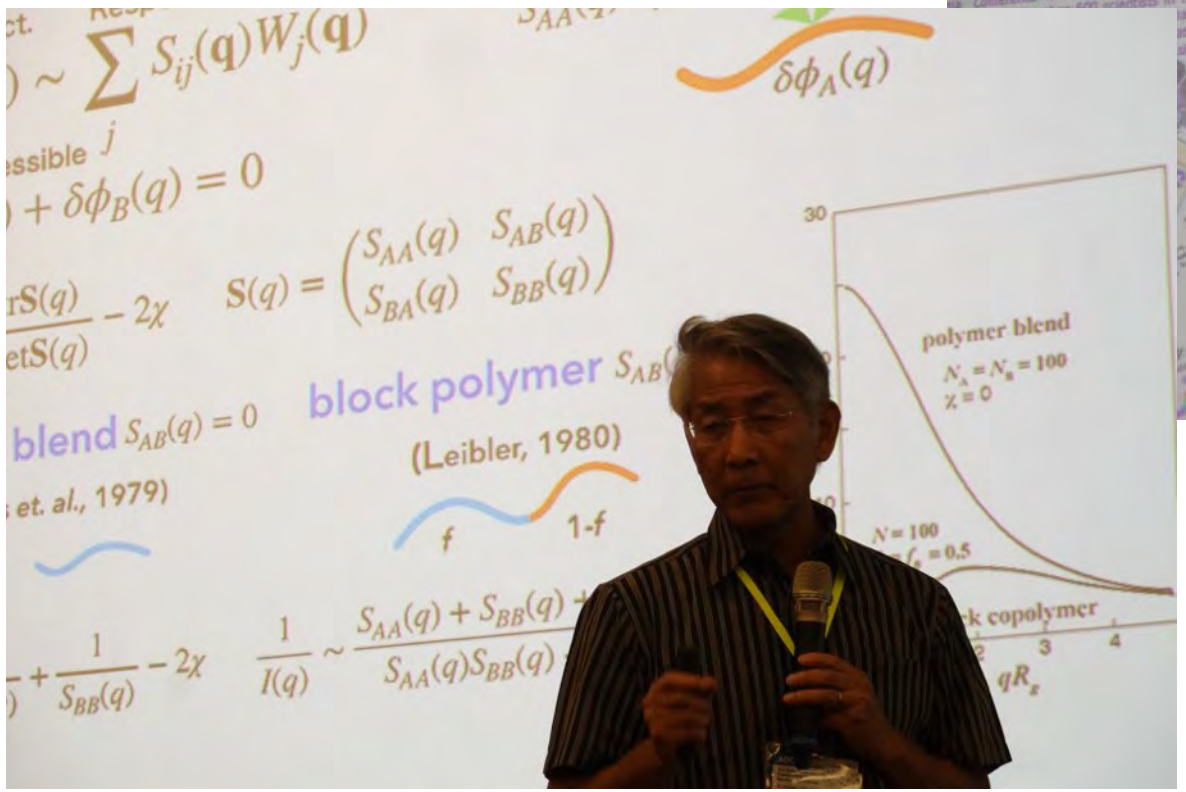





Warsteiner



AOCNS 2019
AONSA
TWNSS


$\sum S_{ij}(\mathbf{q})W_j(\mathbf{q})$
$\delta\phi_A(q)$
$+\delta\phi_B(q)=0$
$S(q)=\begin{pmatrix}S_{AA}(q) & S_{AB}(q)\\ S_{BA}(q) & S_{BB}(q)\end{pmatrix}$
-2χ
blend $S_{AB}(q)=0$
et. al., 1979)
block polymer
(Leibler, 1980)
f
1-f
polymer blend
$N_A=N_B=100$
$\chi=0$
$N=100$
$f_A=0.5$
$\frac{1}{I(q)}\sim\frac{S_{AA}(q)+S_{BB}(q)+}{S_{AA}(q)S_{BB}(q)}$
-2χ
qR_g


AOCNS 2019
rd Asian-Oceanian Conference on Neutron Scattering
TAIWAN NEUTRON SCIENCE SOCIETY
M&D
User Facility
TWNSS


台灣中子科學學會
第六屆第二次會員大會
TAIWAN NEUTRON SCIENCE SOCIETY
M&D
User Facility
TWNSS
時間：2019.11.16 16:00
地點：墾丁福華飯店


AOCNS 2019
AONSA
3rd
Asia-Oceania
Conference
on Neutron
Scattering
第三屆亞洲及大洋洲中子散射會議
Date & Venue
16-21 November 2019
Howard Beach Resort Kenting
huiwu419@ihep.ac.cn

The 18th Facility Directors Meeting

Date: Sunday 17th November, 2019

Time: **14:30 pm to 18:00 pm**

Location: Kenting, Taiwan


AOCNS 2019
AONSA
3rd
Asia-Oceania
Conference
on Neutron
Scattering
第三屆亞洲及大洋洲中子散射會議
Date & Venue
16-21 November 2019
Howard Beach Resort Kenting
huiwu419@ihep.ac.cn

Participants:

Fangwei Wang, CSNS, chair, through video conferencing app
Sungil Park, HANARO
Toshiji Kanaya, J-PARC
Masayasu Takeda, JRR-3
Jamie Schulz, OPAL
Kai Sun, CARR, through video conferencing app
Xin Ju, CMRR
Rafai Muslih, G. A. Siwabessy

Observers:

Yukinobu Kawakita, J-PARC/KEK
Kenji Nakajima, J-PARC/JAEA
Mitsuhiro Shibayama, JRR-3/U. Tokyo
Wanchuck Woo, HANARO
Yuntao Liu, CARR, through video conferencing app
Apichate Maneewong, TINT
Brendan Kennedy, AONSA President
Dongfeng Chen, AONSA Vice President, through video conferencing app
Jae-Ho Chung, AONSA secretary
Taku Sato, AONSA PR officer

Agenda:

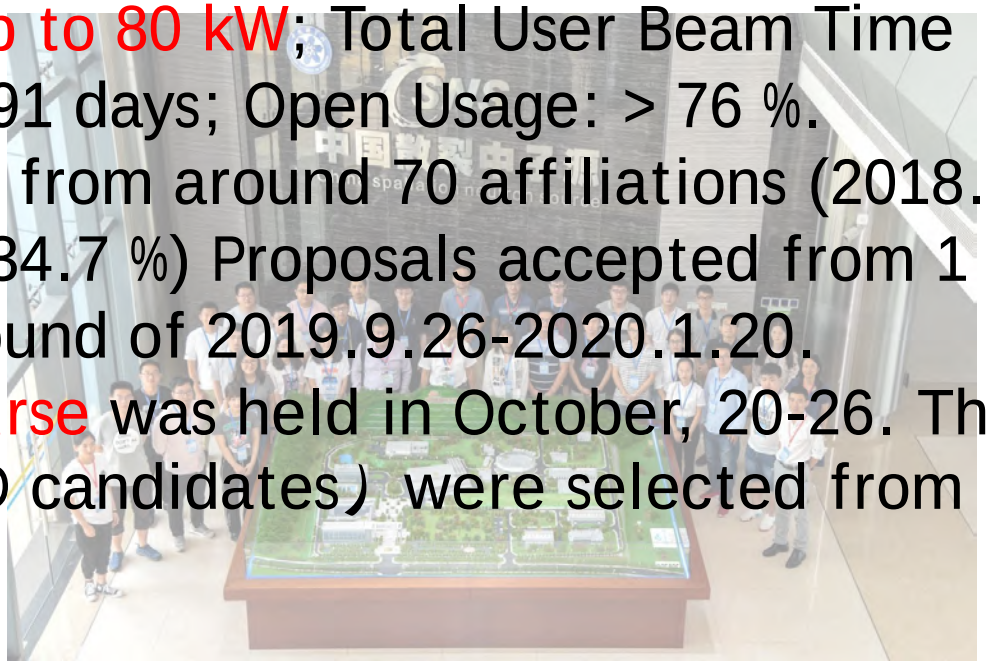
1. Opening remarks
2. Self-introduction of attendees
3. Purpose & Role of the FDM
4. Approval of Agenda
5. Review of last meeting notes
6. Facility Updates (report will be presented in the conference, just one slide to summarize, 5 minutes each)
    - (1) CSNS **(short remark only, full presentation on 19 Nov)**
    - (2) HANARO **(short remark only, full presentation on 19 Nov)**
    - (3) J-PARC **(short remark only, full presentation on 19 Nov)**
    - (4) JRR-3
    - (5) OPAL **(short remark only, full presentation on 19 Nov)**
    - (6) CARR/CIAE
    - (7) CMRR
    - (8) DHRUVA
    - (9) G. A. Siwabessy
7. AONSA Business
    - (1) AONSA Young Research Fellows
    - (2) Next AONSA Neutron School
8. Discussion on the challenges, opportunities and cooperation of neutron facilities
    - **(1) Establishing "The League of Neutron Facilities"**
    - **(2) Region-wide status report of neutron facilities**
    - **(3) Way to Help facilities to get support from their governments**
    - **(4) Teleconferencing needed?**
9. Other business:
    - (1) Next Chair & Secretary **(Fangwei until 1st half 2020)**
10. Closing remarks
11. Photo

Facilities

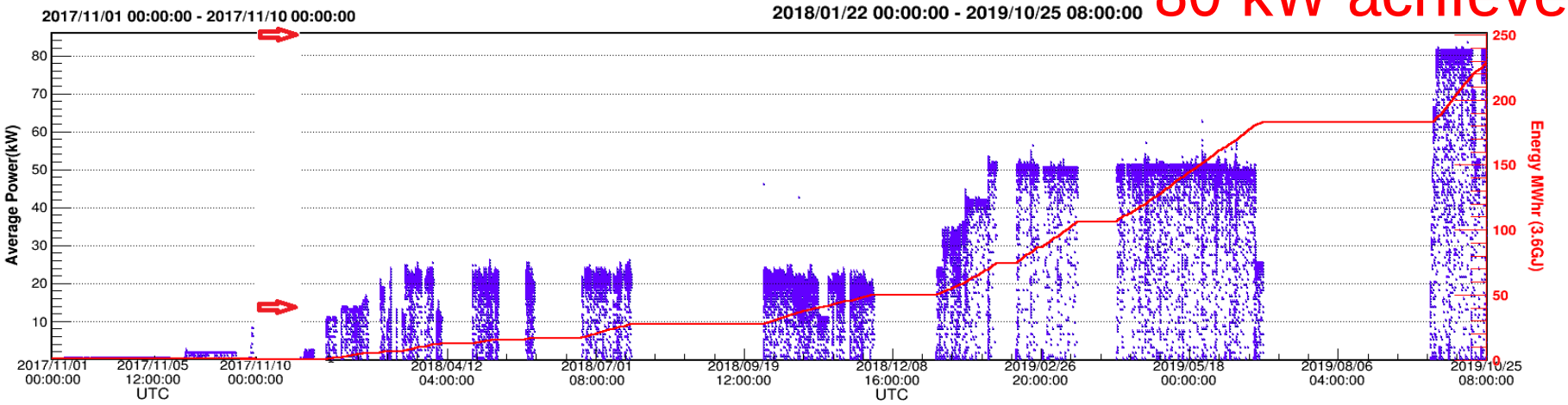
1. CSNS : Fangwei Wang (via video conf.)
2. HANARO : Sungil Park
3. J-PARC : Toshiji Kanaya
4. JRR-3M : Masa Takeda
5. OPAL : Jamie Schulz
6. CARR/CIAE : Kai Sun (via video conf.)
7. CMRR : Gong Jian (Xin Ju)
8. Dhruva : S. M. Yusuf (chair)
9. G. A. Siwabessy : Iwan Sumirat (Rifai)

CSNS Summary

- Beam power on target up to 80 kW; Total User Beam Time (2018.9.1-2019.6.31) : 191 days; Open Usage: > 76 %.
- 101 Proposals completed from around 70 affiliations (2018.9.1-2019.6.31), and 57 (34.7 %) Proposals accepted from 164 submissions for the round of 2019.9.26-2020.1.20.
- The 1st CSNS training course was held in October, 20-26. Thirty students (mainly PhD candidates) were selected from 98 applicants.



80 kW achieved

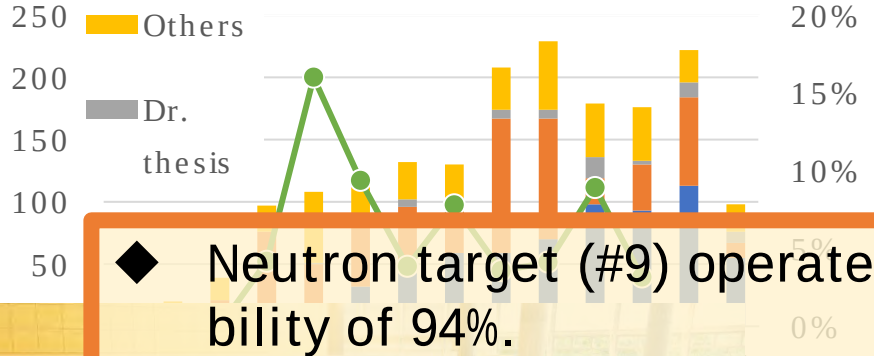


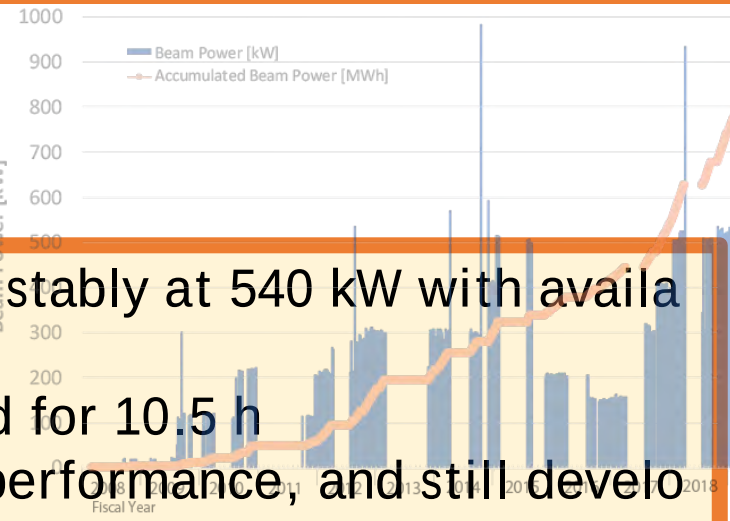
HANARO

- Reactor manually shutdown 28 Nov. 2018; reactor restart not expected until 22 Nov., when NSSC convenes to discuss restart.
- User operation in December ~ February being prepared
- Push for the change of the NSSC public notice
- Fixes required on all levels of management, user relations and operation, facility maintenance, etc.
- HANARO renovation plan being formulated: part of the Goal 2030 plan of KAERI

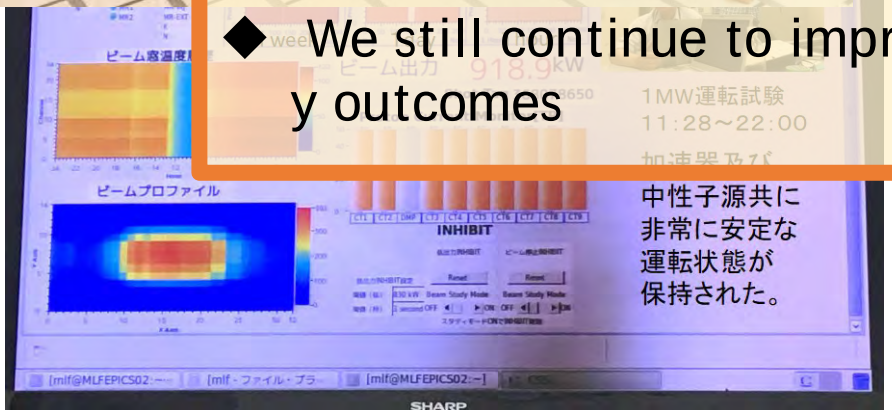
Current Status of J-PARC MLF

Toshiji Kanaya



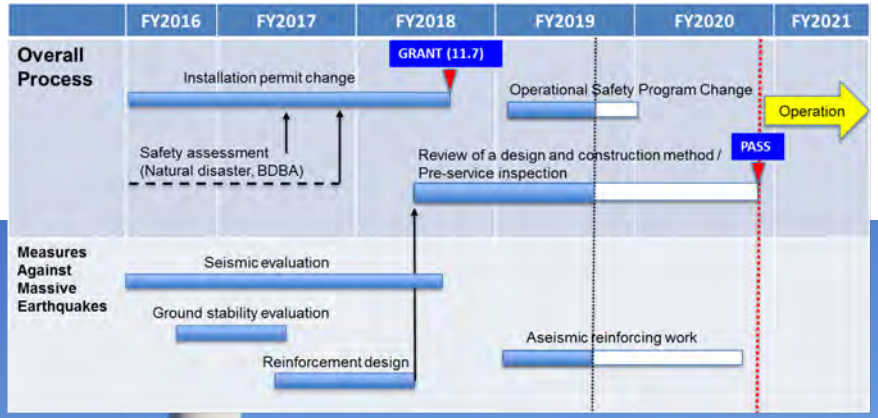


- Neutron target (#9) operated very stably at 540 kW with availability of 94%.
- 1MW test operation was succeeded for 10.5 h
- Instruments have the world level performance, and still developing.
- Developments of sample environments and new neutron devices are on-going.
- J-PARC Symposium was held to celebrate the 10th Anniversary
- The 4th Neutron and Muon School was held together with the MIRAI PhD School
- We still continue to improve J-PARC MLF to increase high quality outcomes



Status and Activities of JRR-3

Mitsu Shibayama (ISSP) ,
Masayasu Takeda, and Yoji Murayama (JAEA)

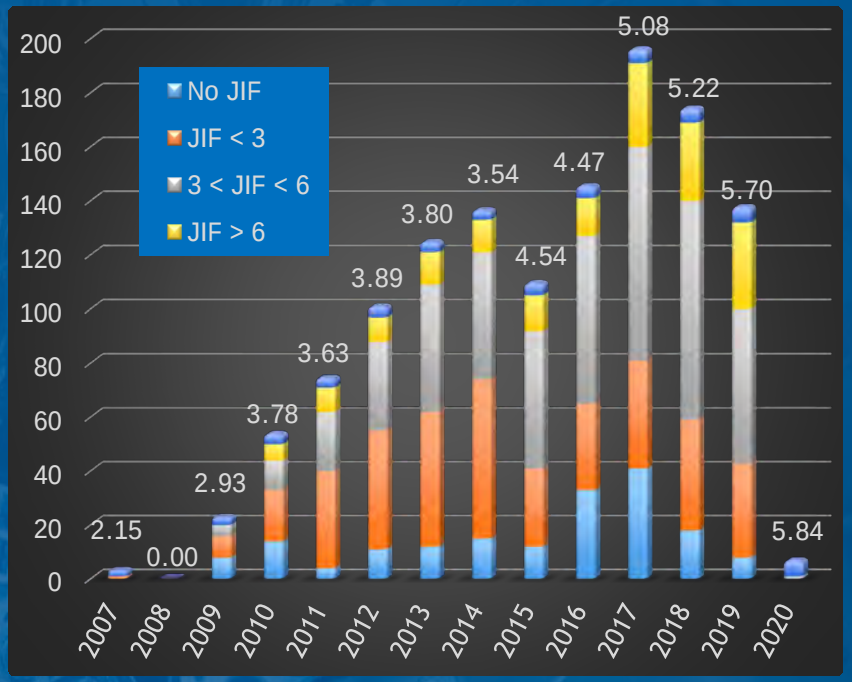


(as of Nov. 11, 2019)

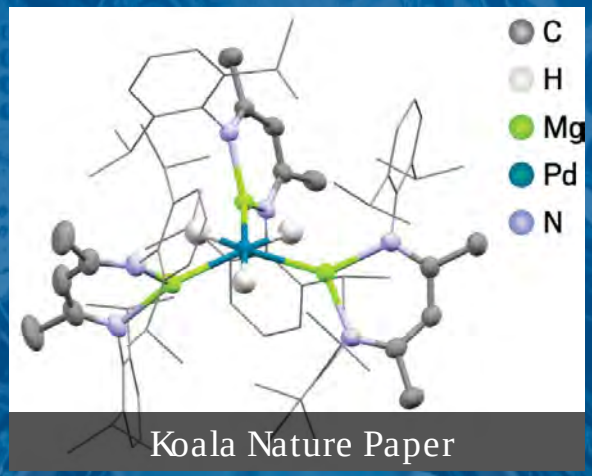
- The operational license was granted.
  - The reactor is scheduled to restart in the e nd of February 2021.
  - Old neutron guides near the reactor core h ave been replaced by high-performance on es.
- ISSP continues to support access to international facilities for Japanese researchers
  - FY2018: 54 persons
  - ISSP applied proposals for FY2019, general use: 83, IRT: 17
  - ISSP research activities carried out at overs eas, e.g., ANSTO, NIST, ILL, ORNL, etc.

ANSTO Status Report - Jamie Schulz

- Quality of journal publications continues to incr ease
- 3 month outage to Neutron Guide Hall instrume nts deferred until April-August 2020 for TG123 p rimary shutter replacement
- Spatz official opening in June 2019
- ANSTO-HZB neutron school in June 2019
- New projects approved
  - Bilby high-resolution detector
  - Koala refurbishment
- Spatz operational licence expected in Nov 2019
- 2nd Nature paper in 2019 – Koala




Spatz Opening ANSTO in June 2019



Koala Nature Paper

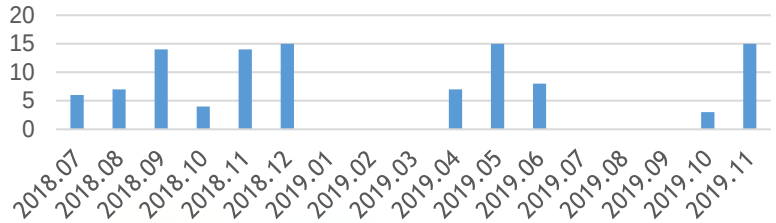

ANSTO/ HZB Neutron School

中国原子能科学研究院
CHINA INSTITUTE OF ATOMIC ENERGY

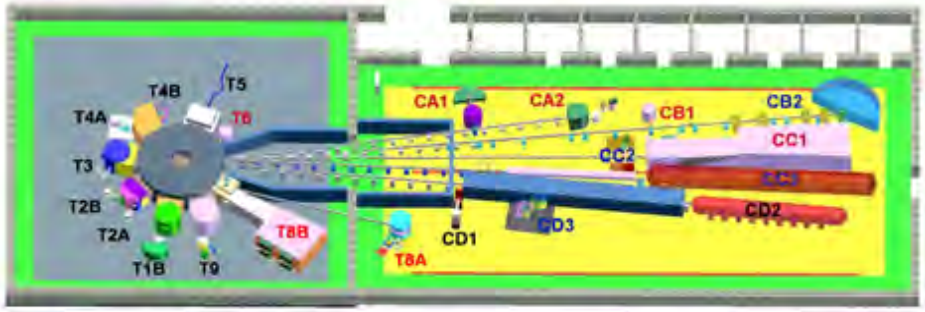
Facilities Report at CARR

- CARR has run safely and reliably more than 100 days at 30MW since July 2018
- 12 instruments are operational, 6 under construction
- Development on neutron guide system has been on-going
- Many scientific researches and industrial component tests have been carried out by using neutron facilities, and 15 papers have been published in 2019
- Domestic and international collaborations are being strengthened

More than 100 days operation since July2018

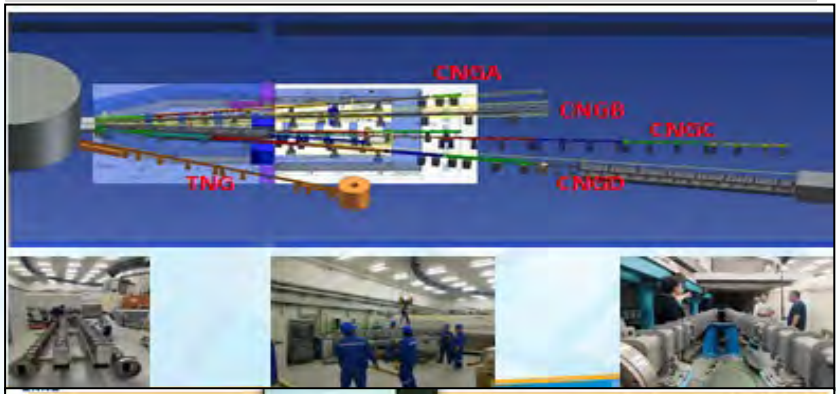


Layout of CARR facilities



In operation(12): Triple Axis Spectrometer I (T9)、Triple Axis Spectrometer II (T1B)、Four Circle Diffractometer (T2A)、Texture Diffractometer (T2B)、Residual Stress Diffractometer (T3)、High Resolution Powder Diffractometer (T4B)、High Intensity Powder Diffractometer(T4B),Small-Angle Neutron Scattering (CD2)、Reflectometer (CD1)、Multi Axis Crystal Spectrometer (CA1)、Cold Triple Axis Spectrometer (CA2)、Neutron Depth Profile(NDP)

Under construction(6): Thermal Neutron Imaging (TNI)、Cold Neutron Imaging (CNI)、Engineering Neutron Diffractometer(END)、Instrumental Neutron Activation Analysis (INAA)、Cold neutron Prompt Gamma Activation Analysis (C-PGAA)、Thermal neutron Prompt Gamma Activation Analysis (Th-PGAA)



Neutron Summer school, Beijing, June2019

ECNS, Saint Petersburg, July2019

CNSS-The 7th National Conference on Neutron Scattering, Beijing, Nov2019

CMRR Neutron Scattering Platform

- **8 instruments are operational**

- **8 new instruments as phase II are going well**

Neutron Scattering Facilities
Bhabha Atomic Research Centre, Mumbai, India

- **Neutron source type:** Reactor (Dhruva)
- **Reactor Power:** 100 MW (Thermal)
- **Neutron beam instruments (operational)** (12)

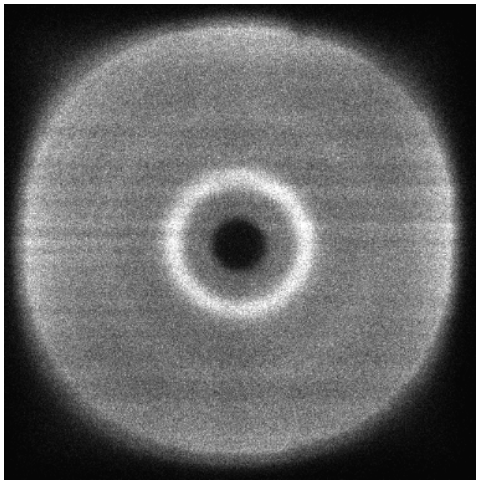
Neutron Scattering Facilities inside Dhruva Reactor Hall

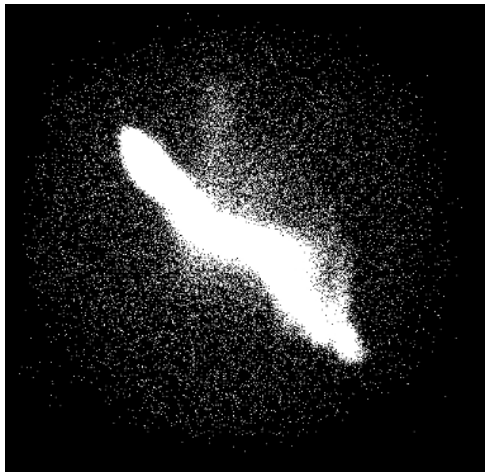
BATAN's Neutron Facility *Update N ov 2019*

- **Reactor15MW, CW, 8 working instruments, 31 staffs, Operations: 150 days/year (avg), Publication:**

2015	2016	2017	2018
33	7	29	21

Repairment of shutter syst em of S6 beamtube





Silver behenate diffraction using SANS before and after repaired t he detector. Thanks to ANSTO for sharing experience.

Workshop On Neutron scattering for Univ. Research est. non BATAN

AONSA Young Research Fellows

- 2019 :

Dr. Shaofei, Wang

Host: ANSTO

Dr. Chi-Hung Lee

JPARC

Dr. Minyoung Yoon

ANSTO

- 2020: determination from tomorrow EC meeting
- 2021 round– OPAL(1-2), J-PARC(1), CSNS (1-2), HANARO (0), CMRR (0), BATAN(0), CARR (2)?
- Directors will come up with the instrument and the number for the 2021 round next time.

Next AONSA Neutron School

- 2020: October 12~? at CSNS
  - ~6 days
  - Lecture and hands-on
  - Rules of the Neutron School
  - A facility might support a student or two.

- 2021 and on
  - 2021: somewhere outside China?
  - CMRR in 2022?
  - Discussion expected in the EC meeting including coordination of the national neutron schools.

Other discussions

- The league of neutron facilities
  - Europe needed one because of the financial issues; we may want to think about why we are doing this FDM.
  - Next FDM: Half-day meeting & half-day workshop on vision of facility directors (facility development/regional cooperation)
- Region-wide status report
  - Sungil will be asking the directors some numbers.
- Instrument scientist workshop
  - Perhaps it is better to have the workshop as part of the official program of AOCNS.
- Diversity in facilities

Chair: Fangwei Wang

- Jamie Schulz to support Fangwei as a secretary in th next meeting.

Location	Date	Chair	
1st	Bandung, Indonesia	19 May 2011	Shane Kennedy (OPAL)
2nd	Tsukuba, Japan	20 November 2011	Rob Robinson (OPAL)
3rd	Kajang, Malaysia	21 May 2012	Kye-Hong Lee (HANARO)
4th	Beijing, China	26 October 2012	Kye-Hong Lee (HANARO)
5th	Tokai, Japan	19th June 2013	
6th	Guangdong, China	16th November 2013	
7th	Daejeon, Korea	20th Feb 2014	Mitsu Shibayama (JRR3)
8th	Serpong, Indonesia	15th, October 2014	Mitsu Shibayama (JRR3)
9th	Sydney, Australia	July 19th, 2015	Yuntao Liu (CARR/CIAE)
10th	Tokai, Japan	3rd Dec 2015	Mitsu Shibayama (JRR3)
11th	Guangdong, China	May 30th, 2016	Yuntao Liu (CARR/CIAE)
12th	Mumbai , India	17th November, 2016	Jamie Schulz (OPAL)
13th	Daejeon, Korea	8th July, 2017	Jamie Schulz (OPAL)
14th	Bangkok, Thailand	25th November, 2017	Toshi Kanaya (J-PARC MLF)
15th	Malaysia	24th June, 2018	Toshi Kanaya (J-PARC MLF)
16th	Sydney, Australia	16th November, 2018	Sungil Park (HANARO)
17th	Mianyang, China	24th May 2019	Sungil Park (HANARO)

Public Relation Report

from 2019/05/26 to 2019/11/18

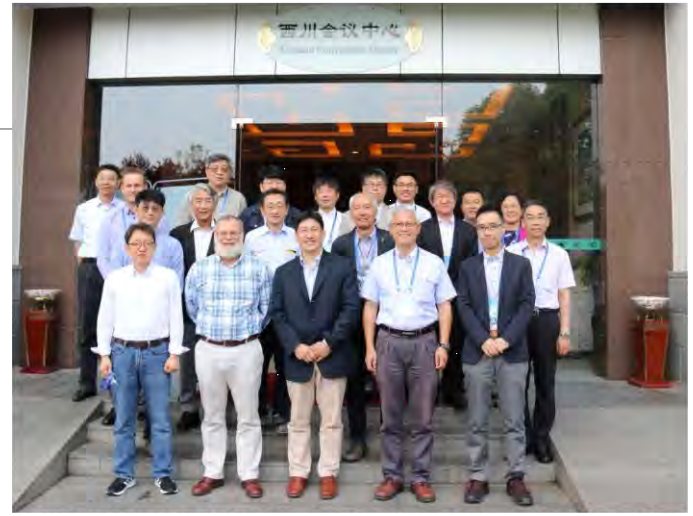
2019/11/18 AONSA EC MEETING AT KENTING (AOCNS 2019)

TAKU J SATO (TOHOKU UNIVERSITY)

News letter and web site

2019/08/19

AONSA News Letter Vol.10 No.2 was issued (and uploaded).



AONSA NEWS LETTER

Vol. 11, No. 1 (Aug, 2019)

Photo of the 22nd AONSA Executive Committee Meeting in Mianyang, China

Contents

Mailing list and website activities

2019/05/30
aonsa.org: website software (wordpress) update (Thanks to Seto-san!).

2019/06/14
aonsa.org: ”Articles, by-laws, rules, and guidelines of association” corrected. (By-laws were outdated. Thanks to Dongfeng!)

2019/06/16
Announcement for the 4th Neutron and Muon School at J-PARC.

2019/07/08-9
aonsa.org: updated to include a link to the “AONSA Neutron School” (Thanks to Sungil!).

2019/07/11
aonsa.org: AONSA YRF information and forms were uploaded.

2019/09/26
Announcement for J-PARC MLF 2020A Call for General Proposals (short term)

The next AONSA news letter

To be issued in Dec, 2019
Deadline: Nov. 30, 2019

Tentative Contents:
1 President's message (Brendan Kennedy)
2 Reports on the AONSA EC meeting (Jae-Ho Chung)
3 Neutron facility directors meeting report (Sungil Park)
4 AONSA Prize (Dongfeng Chen)
5 AONSA Young Research Fellows (Dongfeng Chen)
6 Asia-Oceania Conference on Neutron Scattering (H. Chou)
7 AONSA Neutron School (S. Park)
8 Reports from neutron associations
- ANBUG (T. Rushmer)
- CNSS (D. Chen, H. Chen)
- INSS (Darminto)
- JSNS (K Kakurai)
- KNUBA (Sungkyun Park)
- NSSI (S. M. Yusuf)
- TWNSS (KW Lin)
- Thailand (T. Rattanawongwiboon)
- Malaysia (A. A. Mohamed)

9 Reports from neutron facilities
- J-PARC (T. Kanaya)
- JRR-3 (M. Shibayama/M. Takeda)
- ANSTO (J. Schulz)
- KAERI (S. Park)
- CARR (T Li/Kai Sun)
- CSNS (F. Wang)
- National facility for neutron beam research (India) (S. M. Yusuf)
- BATAN (I. Sumirat)

10 Other reports which are given at the EC meeting.

Australian Neutron Beam Users' Group

Bringing together Australia and New Zealand's neutron beam research community

Report to AONSA
On behalf of Tracy Rushmer (ANBUG President)

AOCNS, Kenting, Taiwan, 19 November 2019

2019-2020 ANBUG executive committee

- Regular EC meetings (videoconference)
- Active actions on events, policy and support for users
- Working closely with ACNS/AINSE.
- ANBUG membership has now reached >400
- New membership system
- ANBUG website & twitter

President
A/Prof Tracy Rushmer
Macquarie University

Vice President
Prof Yun Liu
Australian National University

Past President
Prof Ian Gentle
University of Queensland

Secretary
Dr Andrew Clulow
Monash University

Treasurer
Dr Anna Paradowska
ANSTO

Dr David Cortie
University of Wollongong

A/Prof Tilo Soehnel
University of Auckland

Dr Kathleen Wood
ANSTO

Main ANBUG event for 2019: ANSTO User Meeting

Joint event:

Bringing together synchrotron, neutron and accelerator research communities.
Annual meetings of ANBUG & Australian Synchrotron User Advisory Committee

ANBUG Awards, to be announced at User Meeting

- **Career Award** – sustained contribution throughout the career
- **Neutron Award** - research and leadership promoting the Australian neutron scattering community (>10 years post PhD)
- **Young Scientist Award** – research by scientists within 10 years of PhD
- **Outstanding PhD prize**

ANBUG

Gender equity in Australia

28 Australian Universities & Organisations have a **SAGE Bronze Award***:*

- Performed a peer reviewed self assessment to understand gender inequity

- Have a 4 year plan to achieve goals to improve gender equity

<u>ANBUG Diversity Policy & Code of Conduct currently in consultation:</u>

- Our events will consider diversity in terms of: geography, scientific discipline and gender.
- Collect and publish statistics about diversity
- Target of 50% female invited/keynote speakers.
- Also aiming to showcase early career researchers, mid-career and senior researchers at our conferences.

ANBUG

ANBUG member successes in 2019

AUSTRALIAN INSTITUTE OF PHYSICS

Dr Helen Maynard-Casely – 2019 Women in Physics Lecturer of the Year

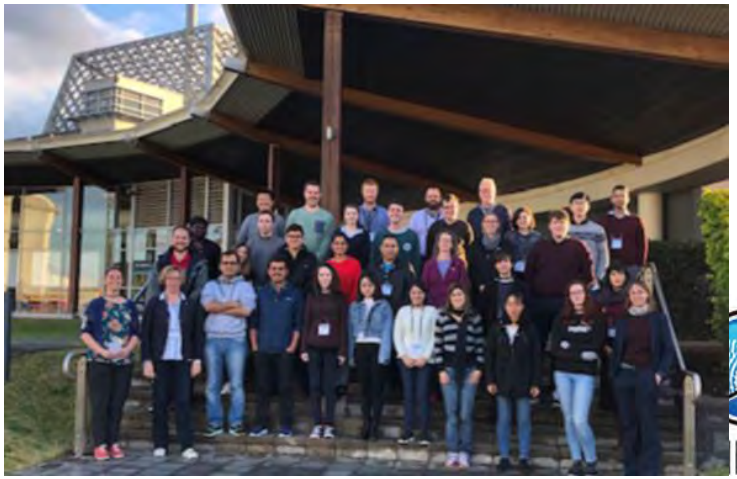
How Neutrons can Save the World

Powder Diffraction at the Australian Synchrotron and OPAL: a workshop for beginners, August 2019

Prof Brendan Kennedy

Prof Vanessa Peterson

HZB-ANSTO Neutron School, June 2019



BUG

Report from China Neutron Scattering Society

Hesheng CHEN

AONSA EC Meeting November 18, 2019

Outline

01 CNSS activities overview

02 Status of CARR,CMRR and CSNS

03 Future plan of CNSS

04 Summary

Outline

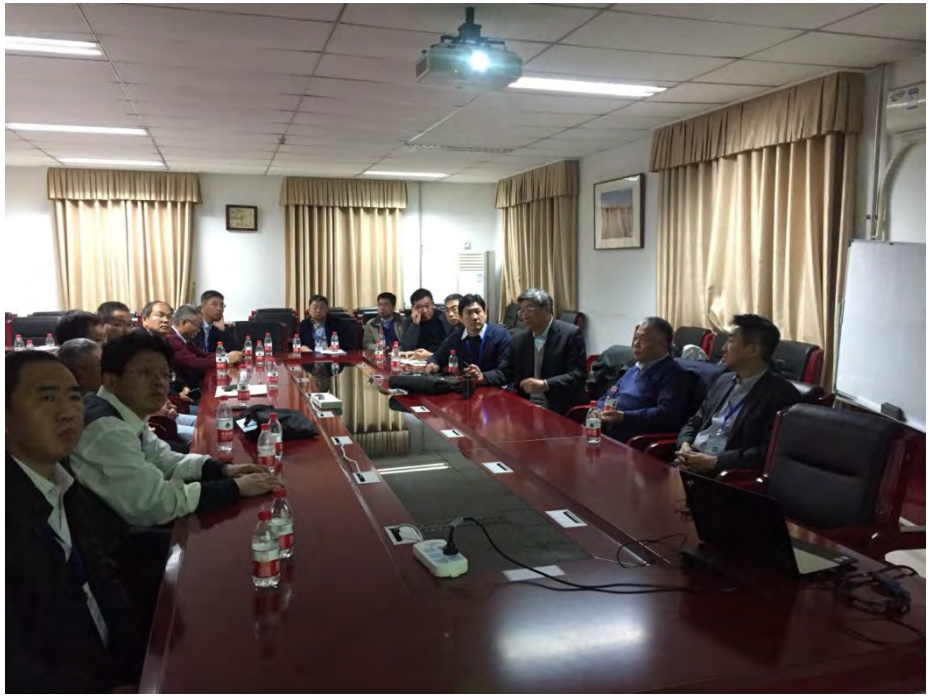
01 CNSS activities overview

Neutron Scattering Facilities in China

User community expands quickly.

The 8th Plenary Meeting of CNSS

(Beijing, 12 November 2019)



Main Topics:

- Disscusion about the international exchanges and cooperation plans with Chairman's of the Americas, Europe, Asia-Ocean Neutron Scattering Associations;
- Established working groups of neutron scattering applications in various fields and nominated the team leaders.

The 7th Chinese Conference on Neutron Scattering

(Nov. 11-14, 2019 Beijing)

- jointly organized by CNSS□ CARR□ Peking University□ CSNS and CMRR, was held in Beijing, on Nov. 11-14, 2019.
- more than 160 attendee from 50 universities and research institutes attended the meeting.

The 7th Chinese Conference on Neutron Scattering

- 50 speakers shared their latest research achievements in 6 themes: the progress of neutron instrments, large-scale neutron scattering, industrial applications of neutrons, neutron inelastic scattering, development of neutron technology,and neutron diffraction.
- 4 winners of Young Outstanding Paper Awards

Participation in ICANS2019

- The 23rd meeting of the International Collaboration on Advanced Neutron Sources (ICANS2019), was held October 13-18, 2019 in Chattanooga, Tennessee, US;
- Prof. Hesheng Chen gave a report “China Spallation Neutron Source” at the invitation of the conference;
- Prof. Xin Tong and Prof. Tao Zhu gave branch reports respectively;
- The ICANS International Advisory Committee decided that the next ICANS 2021 will be held at CSNS in November 2021;

8

participated in the European Neutron Scattering Conference

July 2019 @Russia

- The current progress and research work of the world's major neutron science platforms; Progress of CARR;
  The future development of neutron science was discussed.

Conferences and meetings, CARR

To promote the cultivation of talents , Peking University and CIAE invited ANSTO scientist Maxim Avdeev to Peking University for neutron diffraction data analysis training.

The seminar focused on the three neutron sources in China, and on the neutron diffraction technology, the data analysis method, as well as the construction and design of neutron scattering equipment.

Conferences and meetings, CMRR

➢May 25~26, 2019, the 16th AONSA FDM and 22nd EC Conference were held in Mianyang Fuleshan Hotel.

➢Sep. 17~18, 2019, Southwest University of Science and Technology hosted the 1st National Small Angle Scattering Conference, Prof.Gong Jian gave an invited report to introduce CMRR small angle scattering.

Conferences and meetings, CMRR

- **Jul. 22-26, 2019, hosted by the Graduate School of CAS and CMRR, the “neutron scattering” Advanced Research Seminar was held in Mianyang. More than 120 people participated in the training.**

Mainland-Hong Kong Frontier Discipline Development Forum:

Neutron/Synchronous Radiation Facility and Science Frontier Seminar

- Sep. 9-10, 2019, sponsored by the National Natural Science Foundation of China and the Beijing-Hong Kong Academic Exchange Center, the seminar was held in Dongguan.
- Academician Chen Hesheng, and Academician Guo Wei, President of the City University of Hong Kong, served as the chairman of the conference. About 40 experts from relevant fields in the Mainland, Hong Kong and Macao attended the meeting.。

The first CSNS neutron school

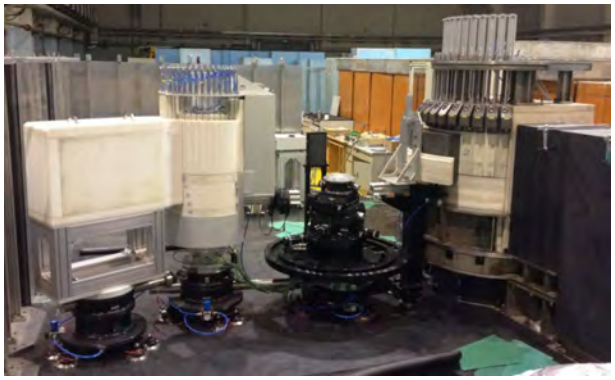
- The first CSNS neutron school hosted by CSNS,was held in the Dongguan from Oct. 20 to 26, 2019. Received 98 applications. 30 students from 27 universities and research institutes across the country (including Hong Kong and Macau) were selected.
- The schedule includes 2 days of lectures, 2 days of computer experiments, 1 day of data analysis and discussion, and half a day of report and defense. The course covered neutron scattering basis, basic principles and data analysis methods of the neutron powder diffraction, reflection and small angle.

Outline

02 Status of CARR,CMRR and CSNS

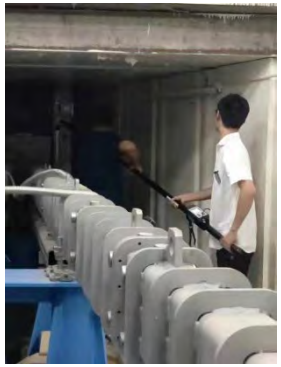
The development of CARR

The project “development of cold neutron inelastic scattering spectrometer”, a major scientific research instrument of the national natural science foundation of China, was completed. The first cold neutron triaxial polarization spectrometer "□ □ " in China and the first cold neutron broad spectrum spectrometer ”□ □ ” were built.



◆Central South University engineering spectrometer was completed, currently debugging.

◆Carry out the transformation of the CNGA and CNGB guide, installation and commissioning work, and prepare for the follow-up construction.



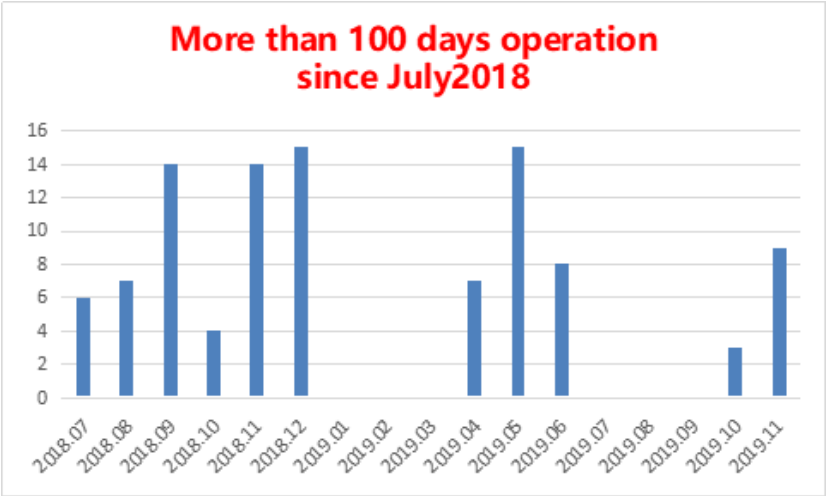
The development of CARR

◆ Neutron diffraction.： the ion battery materials, the hydrogen storage materials and magnetic materials. The CARR Industrial Application Center conducts neutron photography studies.

◆In Jun. 2019, the neutron depth profile technology was used to realize the in-situ measurement of lithium battery on the CARR reactor NDP device, providing a advanced dynamic test method for the development of the national lithium battery (for the first time in China). □

◆The neutron time-of-flight method was developed to enrich the mechanical velocity selector calibration technique.

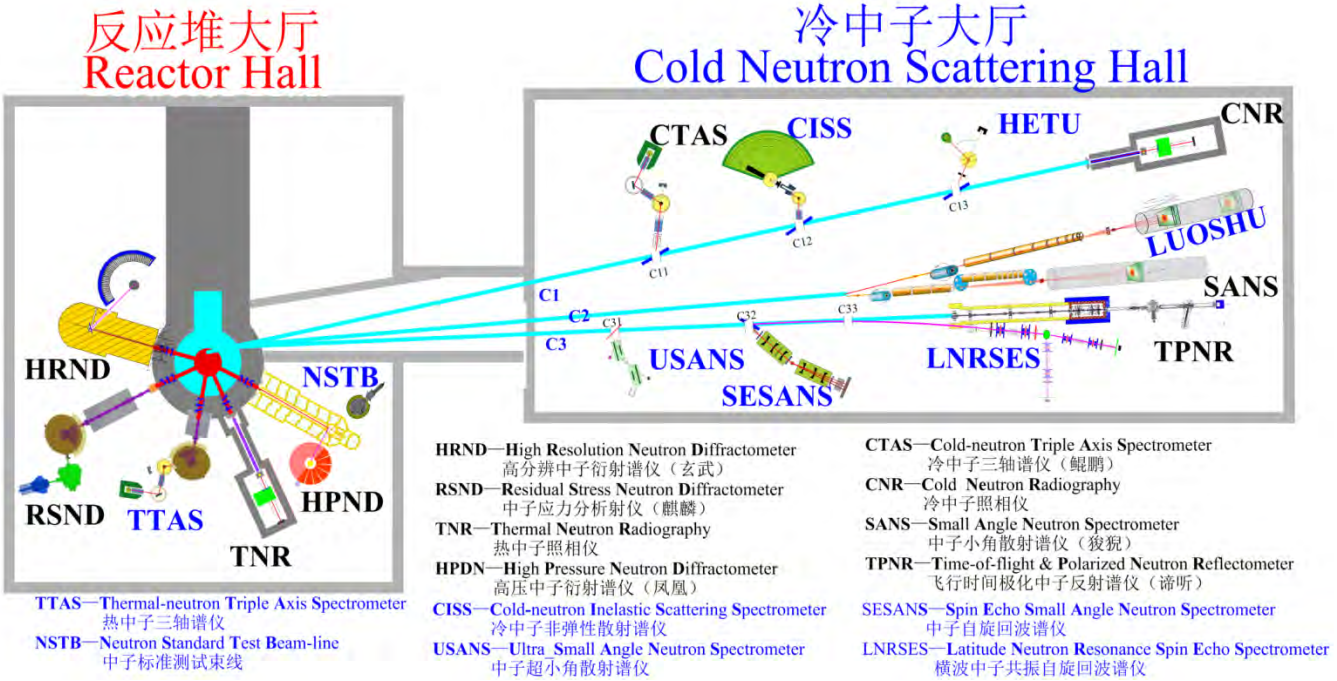
◆In 2019, 12 related articles were published.



China Mianyang Research Reactor

Run 8 instruments, 2019~200 days;

8 instruments under construction are progressing smoothly



➢The user has published more than 10 journal articles, including: Sci., PNAS, JACS, AM, etc., covering hydrogen fuel and lithium-ion battery materials, related electronic materials and thermoelectric materials.

CSNS user service system completed the upgrade

https://user.csns.ihep.ac.cn

□ **Official opening-Beamtime application, Chinese and English version** □

Register an account

First Circle
2018.09.25-11.10
12.01-2019.01.31
Second Circle
2019.02.11-06.30

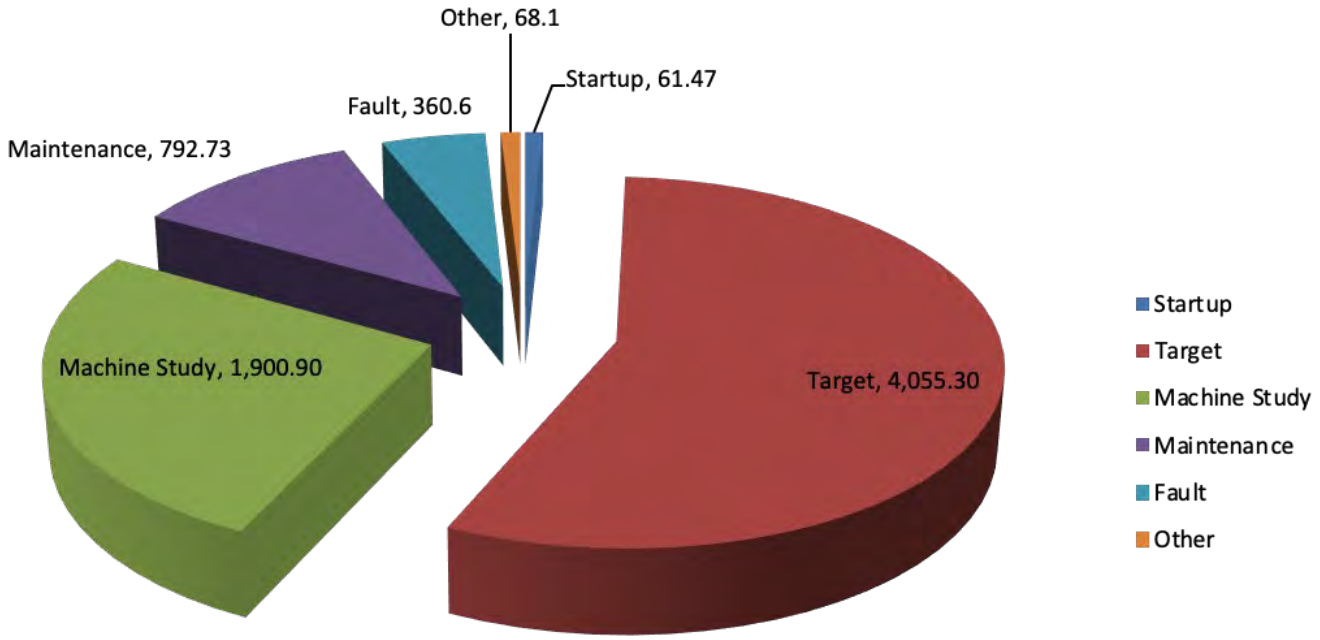
Third Circle□
2019.5.31
2019.09.26-2020.01.16
Fourth Circle:
2020.2-2020.6

Submit a proposal

Proposal type：
1.Direct access
2.Rapid access

CSNS Machine hours Statistics (18.10-19.6)

- 4055 hours was provided to users in the first user operation
- The availability is over 92% during the user operation



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CSNS Running Scheme in 2019

System /Instrument	Planed Hour	Included Hour				Running Data of Similar International Advanced Facilities
		Preparation	Beam Time(for User Experiments)	Instrument Development	Downtime	
Accelerator	**6000**	**1000**	**3600**	**1000**	**400**	**5900**
Target	**5600**	**1000**	**3600**	**800**	**200**	**3980**
Instruments						
GPPD	**3600**	**50**	**2800**	**600**	**150**	
MR	**3600**	**50**	**2600**	**800**	**150**	
SANS	**3600**	**50**	**2600**	**800**	**150**	

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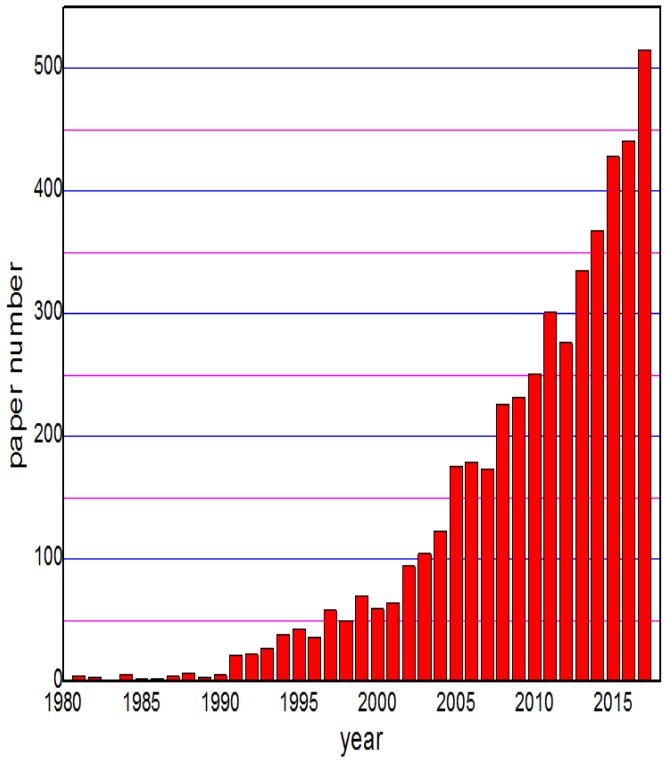
CSNS User Proposals

- **First operation year（Sept. 2018-June. 2019）:**
  - **performed 101 (included 11 from oversea and HK) (acceptance 50%)**
  - **Research fields: energy material, structural material， magnetic, film, alloy, polymer, nano, biology material, hydrogen storage, drug et. al.**
- **Next operation period（Sept. 2019 - Jan. 2020）:**
  - **regular application 164, 35% accepted**
  - **approved 57 proposals (included 7 from oversea, HK and Macao)**



Chinese publications in neutron scattering

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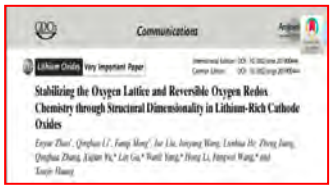
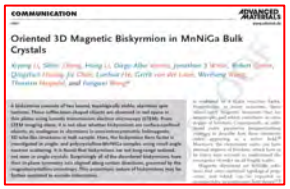
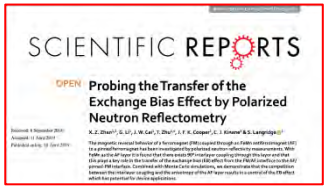
CSNS scientific achievements

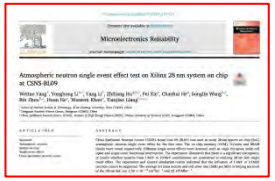
A number of important scientific achievements have been made around basic frontier research and major national needs. The users have published 15 experimental results articles. More than 10 articles are in submission and writing.

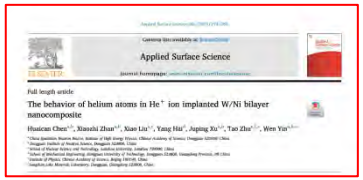
- Lithium ion battery material
- Magnetic and film materials
- organic solar battery
- Information material
- New energy materials
- Aviation material
- Material irradiation damage
- Amorphous material
- Electronic device











CSNS User Instruments

- Multiple Physics Instrument by Dongguan Institute of Technology, and CityU (HK) under construction
- Engineering Diffractometer by Center for Excellent Advanced Materials (Dongguan) under construction
- High Pressure Diffractometer by South China Univ. of Sciences and Technology (Shenzhen),
- Atmosphere Neutron Irradiation by China Electronic Product Reliability and Testing Inst. under construction
- High energy chopper spectrometer by SUN YAT-SEN Univ.

Guangdong Province Government Donation:

- Very small angle neutron scattering
- Energy resolved neutron imaging

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Outline

01

02

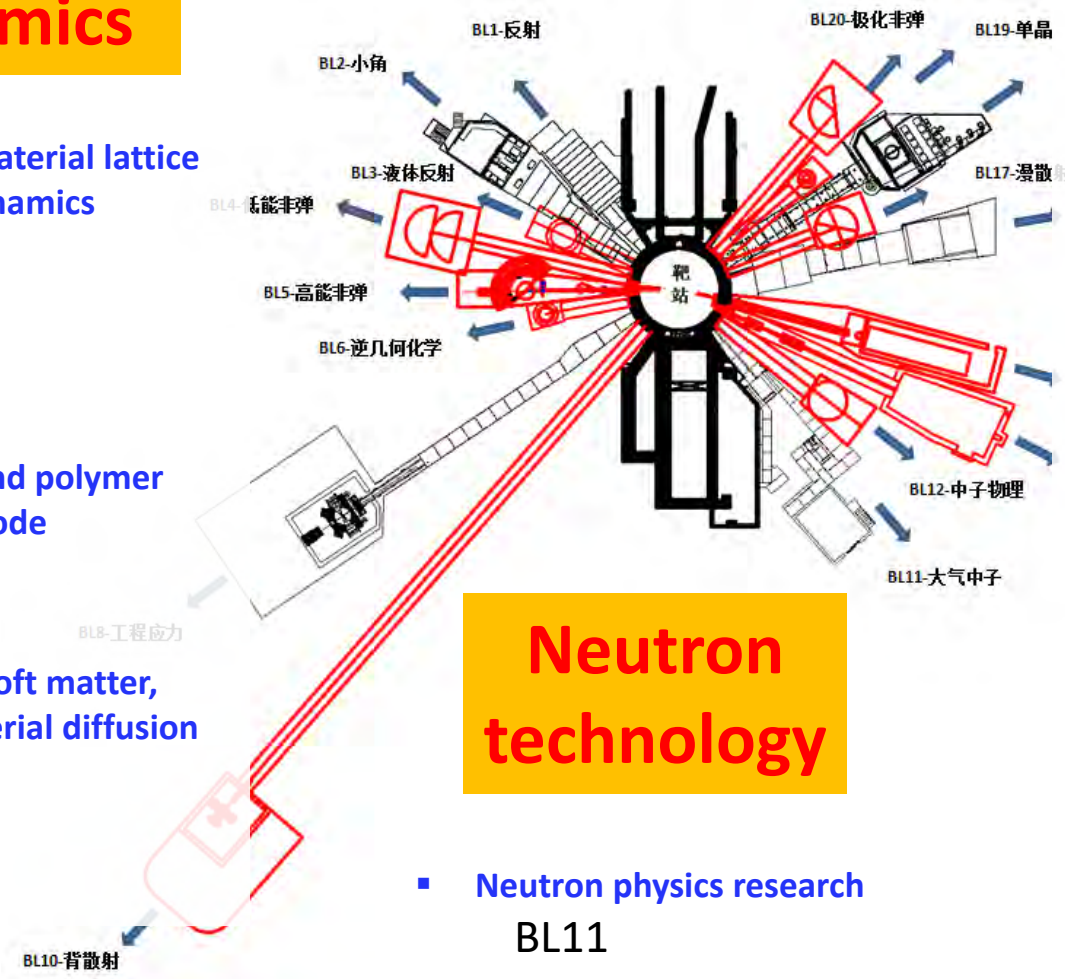
03 **Future plan of CNSS**

04

CSNS Phase II Instrments

Dynamics

- Quantum material lattice and spin dynamics
  - BL04
  - BL05
  - BL20
  - BL17
- Biological and polymer vibration mode
  - BL05
  - BL06
- Biological, soft matter, energy material diffusion movement
  - BL10
  - BL17



Neutron technology

- Neutron physics research
  - BL11
  - BL12
- Neutron device technology research and development
  - BL08B

structure

- Magnetic and quantum material structure
  - BL16
  - BL19
- Biomacromolecule single crystal structure
  - BL19
- Polymer, alloy, medicine, soft matter nanostructure
  - BL03
  - BL14
  - BL16
- Liquid surface and interface structure
  - BL03
  - BL14
- Non-destructive testing of materials such as aerospace, chips, cultural relics, and energy
  - BL08
  - BL11
  - BL13

CSNS Future Plan

CSNS Phase II (14th 5 year plan from 2021) :

- More neutron Instruments (10 instruments)
- More sample environment and user lab.
- Beam power upgrade to 500kW :
  - LINAC beam energy upgrading to 300MeV by superconducting cavities. The tunnel is available.
  - RCS works for 500kW with minor upgrade
  - Target upgrading to 500kW: new target and modulators. (shielding and utility fulfill 500kW)

Long term

- Second target stations
- Muon beams
- ……

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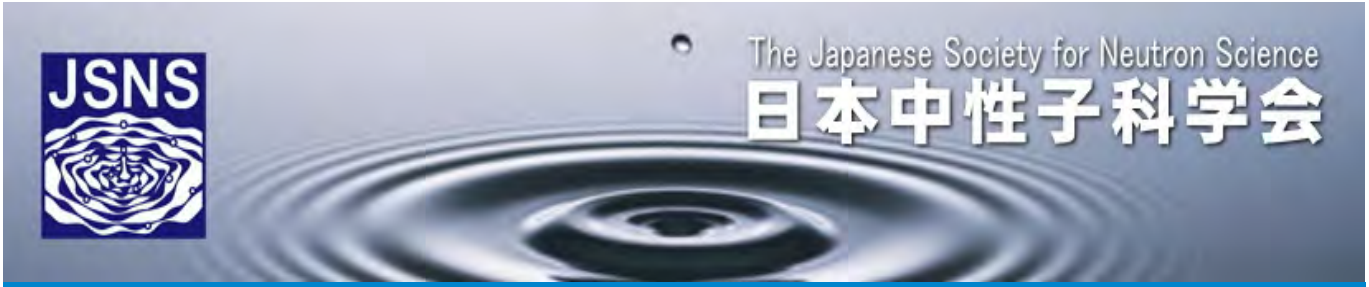
Summary

- The operation of CARR,CMRR and CSNS go well with high efficiency. The user demand is very strong.
- The design and construction of user instruments are underway.
- CSNS phase II upgrade expected.
- Great efforts to promote neutron scattering sciences and application, as well as the neutron instrumentation R&D. User training is key issue.
- Welcome intl. users and look forwarded for more cooperation in the neutron scattering and applications.

Look Forward for More

International Cooperation !

AONSA EC meeting @ AOCNS2019, Kenting, Taiwan, Nov. 18, 2019



Report from Japanese Society for Neutron Science

K. Kakurai

CROSS

Current Status of JSNS and Events

(1) Membership（ 1 Oct. 2019）

592 members

*Regular member: 532 (General=532, Student=32)

*Senior member: 28

33 supporting members

(2) Events

(Past)

I. JSNS Awards

II. The 4th Neutron and Muon School & MIRAI PhD School 2019
28 Oct. – 2. Nov. 2019

(In progress)

III. Election of council members (till 13 Dec 2019)

IV. The 19th Annual Meeting of the Japanese Society for Neutron Science
16 Nov. – 20. Nov. 2019 in conjunction with AOCNS2019
General Assembly and Award Talks on 20. Nov. 2019

(Future)

V. The 20th Annual Meeting of the Japanese Society for Neutron Science
9-11 November 2020 in Sendai

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JSNS Awards

Meritorious Contribution Prize

Masatoshi Arai

Research European Spallation source ERIC (ESS)

Pioneering research and development of the pulse neutron science and technology

Technology Prize

Hiroyuki Takahashi [1] **and Takeshi Fujiwara** [2]

[1] *Institute of Engineering Innovation, School of Engineering, The University of Tokyo*,
[2] *National Institute of Advanced Industrial Science and Technology (AIST)*

Development of the neutron flat-panel detector

Young Scientist Incentive Prize

Yojiro Oba

Materials Sciences Research Center, Japan Atomic Energy Agency (JAEA)

Microstructural characterization in steel using small-angle neutron scattering

Kazuhiro Nawa

Institute of Multidisciplinary Research for Advanced Materials (IMRAM),Tohoku University

Investigations on low-dimensional and frustrated magnets

Bing Li

Shenyang National Laboratory for Materials Science ,Institute of Metal Research, Chinese Academy of Sciences

Research on dynamics of functional materials using quasi-elastic and inelastic neutron scattering

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The 4th Neutron and Muon School & MIRAI PhD School 2019

The 4th Neutron and Muon School & MIRAI PhD School 2019

Date: 28 October – 2 November 2019
Venue: J-PARC MLF
Eligibility: Graduate Students, Post-doctoral fellows and early career researchers from both universities and companies
Support Organizations:
JSNS, JMMS, J-PARC, JAEA, IMSS, KEK, ISSP, Ibaraki U., Industrial User Society for Neutron Application, CROSS, Ibaraki Prefecture, MSR, International Society for μSR Spectroscopy, MIRAI, SwedNess, STINT, Hiroshima U., HiSOR
Participants: 41 (Nationality)
10 (Japan), 9 (China), 8 (India), 4 (Korea), 2 (Sweeden), 1 (Thailand), 1 (Russia), 1 (Spain), 1 (Hungary) 1 (US), 1 (Malaysia), 1 (Nepal)

Program

Lecturers

Introduction to JRR-3 and J-PARC : T. Kanaya (J-PARC)

Introduction to Neutron Science : A. Matic (Chalmers U Tech)

Introduction to Muon Science: K. Shimomura (J-PARC)

Neutron Production: Y. Kiyanagi (Nagoya U)

Muon Production: N. Kawamura (J-PARC)

Neutron Diffraction: N. Matsubara (KTH)

Neutron Reflectometry: B. Hjorvarsson (Uppsala U)

Muonic X-ray: K. M. Kubo (ICU)

Muon Spin Rotation/Relaxation: T. Adachi (Sophia U)

Inelastic & Quasi-elastic Neutron Scattering: T. Masuda (ISSP)

Small Angle Neutron Scattering: E. Blackburn (Lund U)

Neutron Imaging: T. Kamiyama (Hokkaido

Hands-on Data Analysis

Inelastic/Quasi elastic scattering

- BL01 (4SEASONS)
- BL02 (DNA)

2-4 participants/each BL

Diffraction

- BL08 (SuperHRPD)
- BL11 (PLANET)
- BL18 (SENJU)
- BL21 (NOVA)

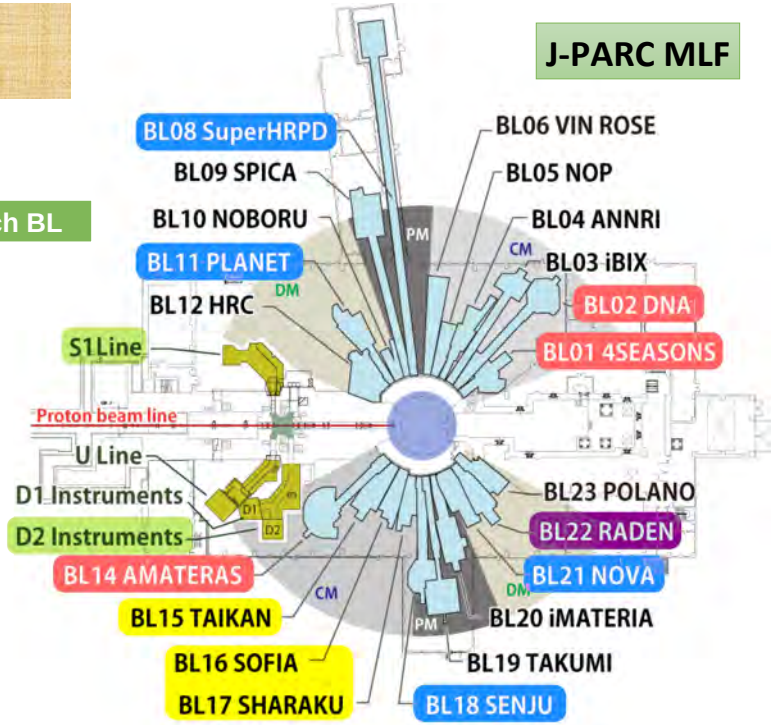
- **SANS/Reflectometry**
  - BL15 (TAIKAN)
  - BL16/17 (SOFIA/SHARAKU)

Imaging

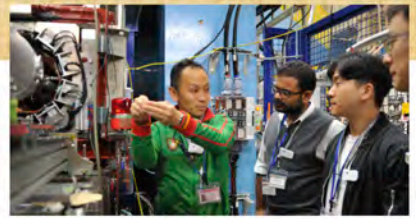
- BL22 (RADEN)

Muon

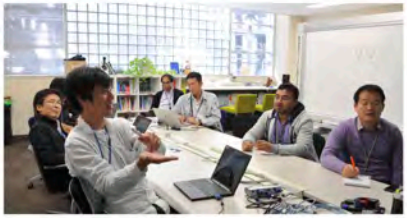
- S1 (ARTEMIS)
- D2



Lectures








Hands-on Data Analysis






Presentation

- Each group makes a 10-minute presentation on the last day.
- They present what they did at the hands-on experiments to both other participants and beamline staffs.
- The Best Presentation Prize is awarded by vote of all participants and staff.

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2019 Board of JSNS (Apr. 2019- Mar. 2020)

President: Kazuhisa Kakurai (CROSS)

Green color: Industry
Red color: Lady

Members of Council (16)

2018-2019 fiscal year

Takashi Kamiyama (Hokkaido Univ.)
Takashi Kamiyama (KEK)
Michinobu Kawakita (J-PARC)
Mitsuhiro Shibayama (Univ. Tokyo)
Junichi Suzuki (CROSS)
Naoya Torikai (Mie Univ.)
Masahiro Hino (Kyoto Univ.)
Osamu Yamamuro (Univ. Tokyo)

2019-2020 fiscal year

Kenji Ohyama (Ibaraki Univ.)
Masayasu Takeda (JAEA)
Hazuki Furukawa (Ochanomizu Univ.)
Michiro Furusaka (AIST)
Hitoshi Endo (KEK)
Hiromichi Kishimoto (Sumitomo Rubber Ind.)
Hirohiko Shimizu (Nagoya Univ.)
Masaaki Fujita (Tohoku Univ.)

Board of Administration

Secretary
Seiko Kawamura (J-PARC)
Taro Nakajima (Univ. Tokyo)

Events Coordination
Taiki Tomonaga (CROSS)
Ryoji Kiyanagi (J-PARC)
Go Matsuba (Yamagata Univ.)

Public-Relations
Hiroshi Nakagawa (JAEA)
Nobuhiro Sato (Kyoto Univ.)

Treasurer
Satoru Iikubo (Kyushu Sangyo Univ.)
Kazutaka Ikeda (KEK)

Communication
Asami Sano (JAEA)
Yusuke Nambu (Tohoku Univ.)

Publication
Taturo Oda (Kyoto Univ.)
Hiroki Iwase (CROSS)

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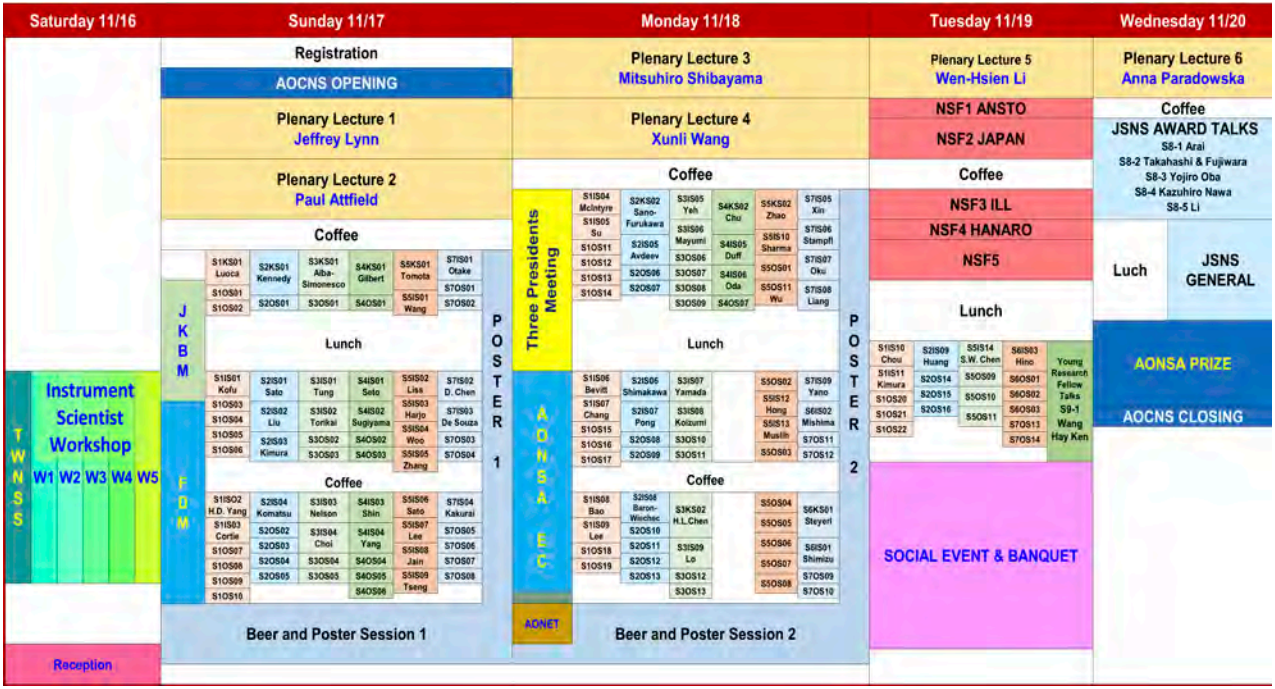
V. The 20th Annual Meeting of the Japanese Society for Neutron Science
9-11 November 2020 in Sendai

AOCNS2019 Programme




Wednesday 11/20
Plenary Lecture 6
Anna Paradowska
Coffee
JSNS AWARD TALKS
S8-1 Arai
S8-2 Takahashi & Fujiwara
S8-3 Yojiro Oba
S8-4 Kazuhiro Nawa
S8-5 Li
Luch
JSNS
GENERAL
AONSA PRIZE
AOCNS CLOSING
8:30-9:00
9:00-9:30
9:30-10:00
10:00-10:30
10:30-11:00
11:00-11:30
11:30-12:00
12:00-12:30
12:30-13:00
13:00-13:30
13:30-14:00
14:00-14:30
14:30-15:00

S8: JSNS Award Talks

S8
NOV 20

Session S8: 1 Session Chair: Room#: BANQUET I

10:00-10:35; S8OS01- A Road toward Development of the Pulse Neutron Science and Technology
Masatoshi Arai
European Spallation Source ERIC (ESS), 221 00 Lund, Sweden

10:35-11:00; S8OS02: The Neutron Flat-Panel Detector
Hiroyuki Takahashi[1*] and Takeshi Fujiwara[2]
1 Institute of Engineering Innovation, School of Engineering, The University of Tokyo, 7-3-1 Hongo Bunkyo, Japan
2 NMIJ, National Institute of Advanced Industrial Science and Technology (AIST), 1-1-1 Umezono Tsukuba, Japan

11:00-11:20; S8OS03: Microstructural characterization in steel using small-angle neutron scattering and neutron transmission
Yojiro Oba,[1]
1 Materials Sciences Research Center, Japan Atomic Energy Agency, Tokai, Japan

11:20-11:40; S8OS04: Investigations on low-dimensional and frustrated magnets
Kazuhiro Nawa,
Institute of Multidisciplinary Research for Advanced Materials, Tohoku University, 2-1-1 Katahira, Sendai 980-8577, Japan

11:40-12:00; S8OS05: Understanding energy-related functional materials by inelastic neutron scattering
Bing Li,[1]
1 Shenyang National Laboratory for Materials Science, Institute of Metal Research, Chinese Academy of Sciences, Shenyang, 110016, China

Current Status of JSNS and Events

(1) Membership（ 1 Oct. 2019）

592 members

*Regular member: 532 (General=532, Student=32)

*Senior member: 28

33 supporting members

(2) Events

(Past)

I. JSNS Awards

II. The 4th Neutron and Muon School & MIRAI PhD School 2019
28 Oct. – 2. Nov. 2019

(In progress)

III. Election of council members (till 13 Dec 2019)

IV. The 19th Annual Meeting of the Japanese Society for Neutron Science
16 Nov. – 20. Nov. 2019 in conjunction with AOCNS2019
General Assembly and Award Talks on 20. Nov. 2019

(Future)

V. The 20th Annual Meeting of the Japanese Society for Neutron Science
9-11 November 2020 in Sendai

Report from the Korean Neutron Beam Users Association

The 23rd AONSA EC meeting
Kenting, Taiwan
2019/11/18

KNBUA
The Korean Neutron Beam Users Association

(http://www.neutron.or.kr)

Sungkyun Park
Pusan National University

Korean Neutron Beam Users Association

- **KNBUA executive committee meeting (2019. 11.07)**
  - President: Jae-Ho Chung (Korea U)
  - Secretary: Soo-Hyung Choi (Hongik U)
  - Editing managers: M.C. Choi (KAIST), S.Y. Kim (UNIST)
  - Financial manager: S.Y. Lee (ChungNam U)
  - Academic managers: J.S. Ku (ChungNam U) / J.H. Kim (Samsung)
  - International relation manager: Sungkyun Park (Pusan NU)
  - HANARO representative: Sungil Park (KAERI)

- Auditor:
  Kwanwoo Shin (Segang U)

Past Workshops and Conferences

- 11th AONSA Neutron school

Separate reports will be delivered

  - Date: Aug. 19 ~23, 2019
  - Venue: INTEC, KAERI, Daejeon, Korea
  - Statistics: 17 students (Korean 11, Foreign national 6), 17 lectures

Past Workshops and Conferences

- 1st Workshop on Inelastic Neutron Scattering in Asia
  - Date: Oct. 29, 2019
  - Venue: Seoul National U., Seoul, Korea
  - Hosted by IBS Center for Strongly Correlated Systems
  - Organized by Je Geun Park, Taku Sato and Wei Bao

Neutron Scattering Facilities
Bhabha Atomic Research Centre, Mumbai, India

Neutron source type: Reactor (Dhruva)

Reactor Power: 100 MW (Thermal)

Neutron beam instruments (operational) (12)

Neutron Scattering Facilities inside Dhruva Reactor Hall

AOCNS 2019
EC meeting: TWNSS

Ko-Wei Lin, TWNSS President
Chair, IEEE Magnetics Society Taiwan Chapter
Chair, MSE Dept., NCHU, Taichung, Taiwan

AOCNS 2019, Kenting Howard Resort, Taiwan, 11/18/2019

https://aocns2019.org

AONSA Newsletter, vol. 11, No. 1 (July 2019).

TWNSS committee meeting on February 15, 2019
Kenting, Ping Tung County, Taiwan

TWNSS

發行人：林克偉
編輯：李文献
執行編輯：黃爾文
助理編輯：林秀玉 曾寶敏

TWNSS Newsletter
Taiwan Neutron Science Society
第6卷 第2期 (2019年8月出版)

本期內容

理事長專欄

第六屆理事長
國立中興大學材料科學與工程學系
林克偉教授兼系主任

台灣中子科學學會轉眼間滿十週年了！回憶當初十多年前，國立中央大學李文献老師舉辦中子散射技術研討會暨研習營，克偉及所屬學生一起參加過的包括日月潭、屏東海生館等會議，了解中子散射技術對凝態物理之磁性薄膜研究之重要性，且直接將我介紹給當時講員之一來自澳洲核子科學及技術設施(ANSTO)之中子反射儀專家Michael James博士，後來由於克偉執行台澳雙邊國際合作計畫，西澳大學Robert Stamps教授提到是否可以幫忙ANSTO朋友製備磁性薄膜樣品，便與ANSTO之極化中子反射儀專家Frank Klose博士開始建立往後之合作關係，除了提供Platypus儀器站裝好後之測試樣品鐵鎳磁性薄膜(當時之博士生Thomas Saerbeck目前任職於法國ILL)，其製備之鐵鎳/氧化鐵薄膜為Platypus第一篇使用極化中子反射儀發表之文章(當時之博士生David Cortie目前任職於澳洲Wollongong大學)，克偉也於2015年下半年至ANSTO進行休假研究，與相關之儀器科學家進行實驗研究與討論。

克偉從中子散射技術的門外漢，有幸在台灣中子科學學會歷任理事長(李文献、賴喜美、周雄、孫亞賢等教授)及秘書處等之推動下，成為中子散射技術之使用者之一，克偉也為當初成立台灣中子科學學會之創始會員之一，國立中興大學於2010及2016年協辦台灣中子科學學會年會(惠蓀林場)，去年底(2018)從孫亞賢教授手中接任成為第六屆台灣中子科學學會理事長，希望秉持歷屆優良傳統，持續推動中子散射技術之使用者，包括台灣各大學、研究機構之老師及其所屬學生。

今年底第三屆亞洲-太平洋洲中子散射會議(AOCNS2019)將於2019年11月16-21日在屏東墾丁福華度假飯店(Howard Beach Resort Kenting)舉行，相關網址為https://aocns2019.org，第六屆理監事們及秘書處亦已於今年二月十五日在AOCNS大會主席國立中山大學周雄教授主持下至現場進行籌備會議等，後續之準備工作仍在積極進行中，在此也感謝理監事、秘書處及議程組之協助與幫忙，希望藉由在台灣舉辦此四年一度之國際會議，提升台灣與國外之專家學者之討論及合作機會，並因此增加台灣老師及學生們使用中子散射技術之機會。

第六屆監理事名單

理事成員:

林克偉	教授/理事長	國立中興大學
楊仲準	教授/副理事長	中原大學
孫亞賢	教授/理事	國立中央大學
張家欽	教授/理事	國立台南大學
鐘世俊	博士/理事	國家同步輻射研究中心
杜昭宏	教授/理事	淡江大學
林錕松	教授/理事	元智大學
陳信龍	教授/理事	國立清華大學
陳孝輝	博士/理事	核能研究所
蔡志申	教授/理事	國立臺灣師範大學
吳渡銘	教授/理事	國家同步輻射研究中心
陳儀帆	教授/理事	國立中央大學
陳威廷	教授/理事	國立臺灣大學凝態中心
楊小青	教授/理事	輔仁大學
黃爾文	教授/理事	國立交通大學

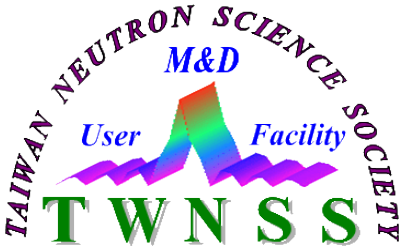
監事成員:

周雄	教授	國立中山大學
陳錦明	博士	國家同步輻射研究中心
蘇安仲	教授	國立清華大學

秘書室成員:

許華書秘書長	國立屏東大學應用物理學系
朱哲毅副秘書長	國立中興大學化學工程學系
陳政營副秘書長	國立臺灣大學凝態中心

TWNSS Newsletter



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張家欽	教授/理事	國立台南大學
鐘世俊	博士/理事	國家同步輻射研究中心
杜昭宏	教授/理事	淡江大學
林錕松	教授/理事	元智大學
陳信龍	教授/理事	國立清華大學
陳孝輝	博士/理事	核能研究所
蔡志申	教授/理事	國立臺灣師範大學
吳渡銘	教授/理事	國家同步輻射研究中心
陳儀帆	教授/理事	國立中央大學
陳威廷	教授/理事	國立臺灣大學凝態中心
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陳政營副秘書長	國立臺灣大學凝態中心

TWNSS Committee members (18)

President: Ko-Wei Lin.
Vice President: Chun-Chuen Yang.
Secretary: Huashu Hsu.

TWNSS newsletter, Vol. 6, No. 2 (2019).

Report from Secretary

TWNSS Secretary: Prof. Huashu Hsu
Chair, Dept. Physics, NPTU, Taiwan

秘書室工作報告

第六屆秘書長
國立屏東大學應用物理學系
許華書教授兼系主任

後學於周雄老師實驗室擔任博士後時，有幸參加當時第一屆台灣中子科學學會的成立大會，也榮幸有機會協助秘書處工作為大家服務。感受到學會內成員大家在有限的人力物力資源下，彼此無私的奉獻與合作來維持台灣中子科學社群的穩定發展。並承擔預計有超過五百學者參加的第三屆亞洲泛太平洋中子散射會議，來提升台灣的中子社群的國際聲望，也更加的感佩。茲就本年度的學會活動，分成會務與會議舉辦報告。

1. 會務報告

A. 新舊任理事長交接

於 108 年 2 月 26 日於桃園高鐵站與前任理事長孫亞賢教授以及秘書長楊仲準教授及第六屆理事長林克偉教授完成新舊任理事長交接。

(a) 學會人數:

在 107 年的學會合格人數為 91 位， 其中 PI 人數 26 位;博士後研究 4 位; 學生 61 位。

(b)會務資料整理:

由於今年需籌辦年會，需有內政部核發之理事長證書再經法院登記獲法人證書後，方能辦理會議所需之金流帳戶及邀請大陸學者來台參加研討會。感謝中子學會交接小組前後任理事長及秘書長的協助。目前已經整理前幾年的資料通過內政部之程序辦理法院認證程序中，亦將藉此機會在各位先進的協助下，將學會的政府機關須進行的程序完成，以利未來學會的持續發展。

Attendee at 2018 TWNSS annual conference: 91.

Editor's message by
E-Wen Huang, NCTU.

Travel support policy to do neutron exp. from neutron group, NSRRC.

Support 454 (exp.) and 40 (neutron school) persons since 2013.

編輯室簡訊

本期的編輯室簡訊，傳播以下兩項訊息，敬請會員們參考，以利學會分工合作與會員討論。

首先是今年亞太中子會議(https://aocns2019.org/)將有來自世界各地的相關研究學者前來分享科技前沿並促成合作。將有賴各位會員們分享辦理會議的經驗與群策群力的參與風險共擔的籌備，以期成功會議的榮耀共享。因此，本期簡訊將招商資訊置於文末，敬請大家幫忙轉傳以籌資辦會。並請大家踴躍報名參加會議，投稿的網址是(https://aocns2019.org/index.php?action=regist_form)。

中子培育計畫經費補助辦法

"致敬愛的中子用戶:

同步輻射研究中心自 2013 年以來受科技部委託執行中子用戶培育計畫，至今已補助中子用戶 454 人次從事中子相關應用實驗，支持 40 人次的學生參加各中子學校，並且持續辦理中子相關研習課程及至各大專院校和研究機構推廣中子技術。在參與人數與成果發表上已連年成長並有良好的成果。

然而新一期科技部的用戶培育計畫經費通過預算為前期之 50%。為了因應新的經費規模與情況，本中心需要您的回饋，作為日後執行下一期中子用戶培育計畫之參考。

請將您的意見於以下網址中表達: 中子培育計畫經費補助辦法問卷調查

另，科技部審查委員建議 PI 可直接向科計部申請計畫變更，要求增加中子實驗的差旅補助或申請國合司的自由型國際合作加值計畫(詳情請參考這裏)。建議中子用戶也可以考慮直接向科技部申請中子實驗經費，以彌補日後用戶計畫經費補助的不足。

最後，感謝中子用戶群多年以來對本中心中子各項業務的支持與配合。本中心將針對大家的投票結果研擬相關因應之方案，以提供大家最合適的服務。

敬祝

平安順心

中子小組敬上"

Article by Wei-Ren Chen et al., ORNL about small angle neutron scattering

廣域小角度中子散射

作者: 陳威仁，篠原佑也，都昌佑
單位: 中子散射部門，材料科學部門, 橡樹嶺國家實驗室(Oak Ridge National Laboratory), 美國能源部(Department of Energy, DOE)

一. 簡介

二戰結束後由歐洲學者首先發展小角度散射(small angle scattering)。現今，小角度散射已成為用於研究材料結構常用且成熟的實驗手段。依據材料特性，常用的輻射源包括雷射，X 光以及中子。小角度散射實驗的優勢在於:材料的靜態微結構難以由實空間直接觀測。卻可藉由分析倒空間散射光譜來間接推論。

TWNSS newsletter, Vol. 6, No. 2 (2019).

Dr. Chih-Hung Lee, AONSA
Young research Fellow 2019

Plan: short term research
at J-PARC….

Supporting staff at Registration desk

TWNSS annual conference 2019

Plenary speaker: Prof. Mitsuhiro Shibayama, Univ. of Tokyo, Japan.

11/16/2019, Howard Resort Kenting.

IEEE Magnetics Society Summer School 2020 in Central Taiwan

- Date: July 5 - July 10, 2020.
- Place: National Chung Hsing University's Hui-Sun Forest Resort.
- Nearby attractions:
- Sun Moon Lake,
- The Formosan Aboriginal Culture Village.

Local Organizing Committee:
Mean-Jue Tung (TAMT President), Chih-Huang Lai,
Ching-Ray Chang, Te-Ho Wu, Mi-Ching Tsai, Jai-Lin Tsai
Chi-Feng Pai, Hwang-Wei Chang, Ko-Wei Lin (chapter chair).
Contact: Dr. Brian Kirby (briankirby@ieee.org)
Website: http://ieeemagnetics.org

http://ieeemagnetics.org/index.php?option=com_content&view=article&id=135&Itemid=140
The application deadline is December 10, 2019.

3rd AOCNS 2019

3rd Asian-Oceanian Conference on Neutron Scattering

2019 NOV 16 – 2019 NOV 21

Howard Beach Resort Kenting

Objective

The Asia-Oceania Conference for Neutron Scattering (AOCNS) is a platform for more than 500 scientists in the Asia-Oceania, Europe and America regions to share outstanding works, latest results, and updates of their state-of-the-art neutron facilities. Additionally, prestigious Asia-Oceania, Europe and American Presidents meeting discussion the future collaboration, AONSA prize and AONSA Young Research Fellowship owner in this field will share their outstanding works.

Scientific Programs

- S1 Condensed Matter Physics
- S2 Materials Science and Chemistry
- S3 Soft Matter Systems
- S4 Food and Biological Science
- S5 Engineering and Industrial Applications
- S6 Fundamental Physics
- S7 Sources, Methods and Techniques

Submission Deadline September 15

Early Bird Oct. 15

Call for Papers !

People

Plenary Speakers

Keynote Speakers

Facility Representatives

Presidents

Host by

TAIWAN NEUTRON SCIENCE SOCIETY M&D User Facility TWNSS

AONSA

: aocns2019@aocns2019.org

www.aocns2019.org

SUPPORTERS

Dragon Sponsors

MOST 科技部 Ministry of Science and Technology

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LLC "Neutron Technologies"

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Reuter-Stokes

MIRRORTRON THE WORLD OF NEUTRON

Canon CANON ELECTRON TUBES & DEVICES CO., LTD.

Panasonic

Quantum Design TAIWAN

JRR-3

National University of Tainan Research and Development Center for Lithium-ion Battery

中鋼碳素 CHINA STEEL CHEMICAL

Rigaku Leading With Innovation

Societies:

AONSA

TAIWAN NEUTRON SCIENCE SOCIETY M&D User Facility TWNSS

ANBUG AUSTRALIAN NEUTRON BEAM USERS GROUP

inss

JSNS

KNBUA

Universities and Research Institute:

國立中興大學 National Chung Hsing University

中原大學 Chung Yuan Christian University

國立屏東大學 National Pingtung University

淡江大學 TAMKANG UNIVERSITY

NSRRC

原子能 INER 核研所

AOCNS 2019 Conference venue: Howard Resort Heng-Tsun peninsula: free tour on 11/21

Conference Banquet at Chateau Resort on 11/19

Group photo, AOCNS 2019

11/17/2019

Thailand Community Report

The 23rd AONSA Executive Committee Meeting

Kenting, Taiwan, 18 November 2019

Apichate Maneewong

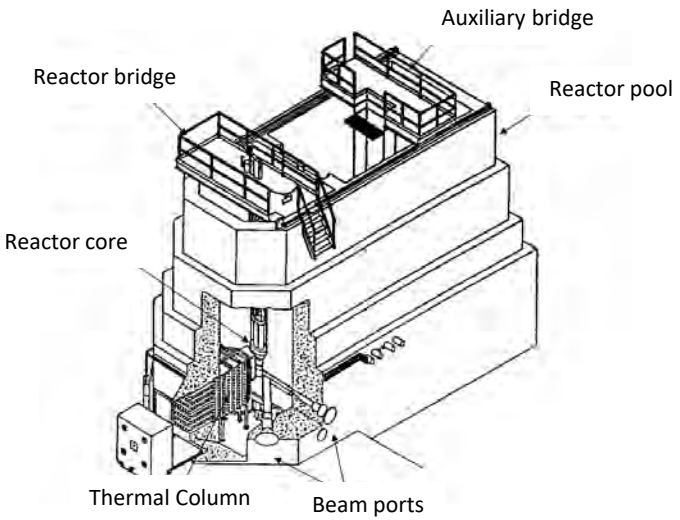
Nuclear scientist

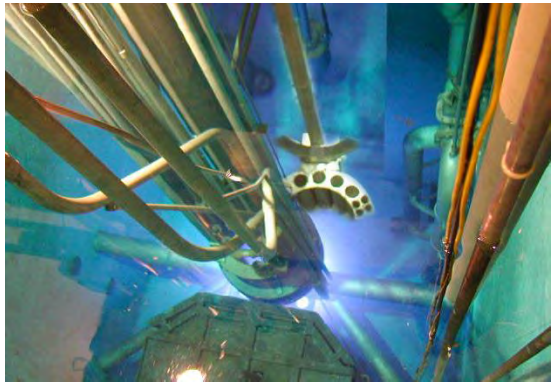
Irradiation Center

Outline

- TRR1/M1
- Neutron Beam Application at TINT
- Community

Thai research reactor (TRR1/M1)





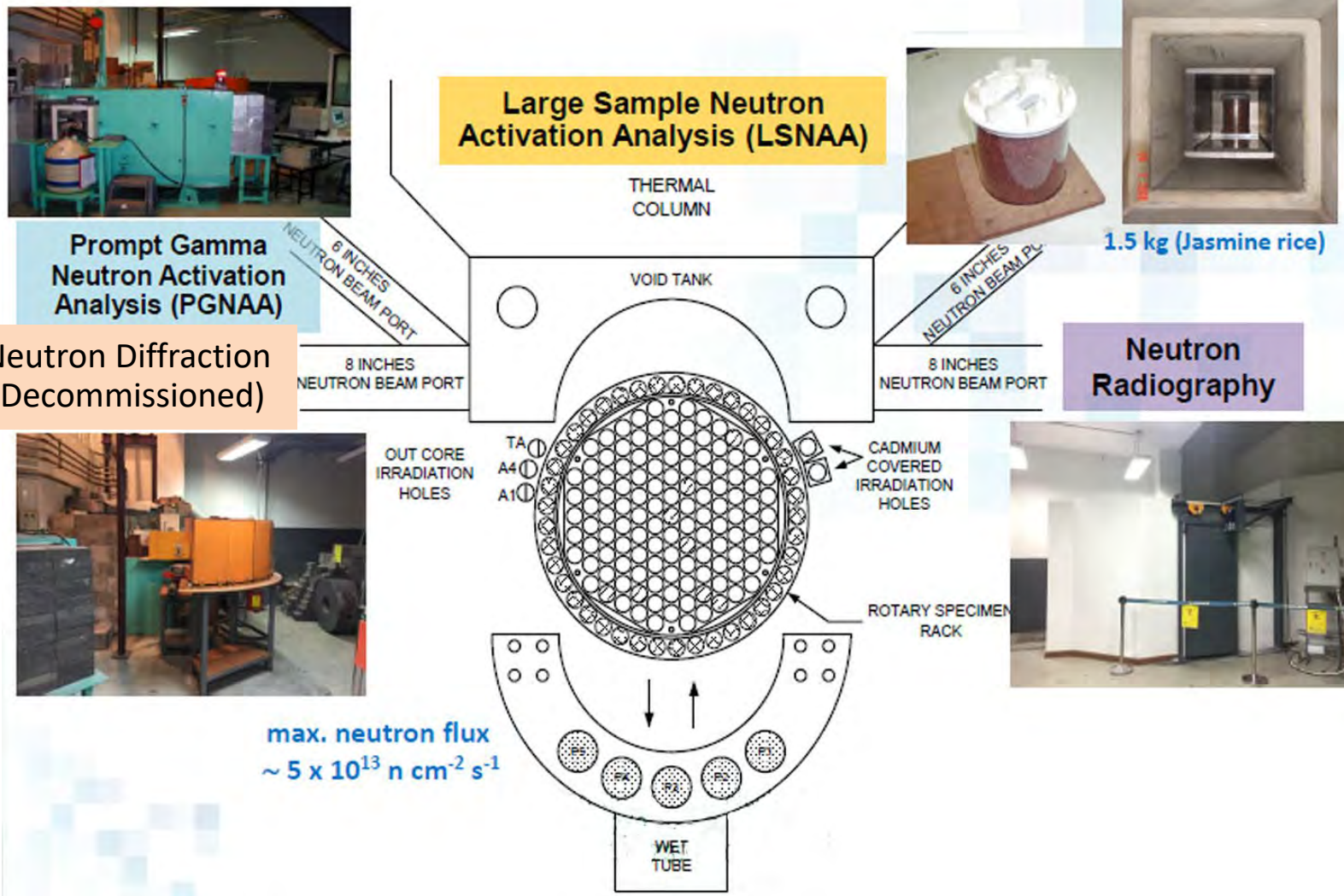
- TRIGA Mark III
- First Critical July 1977
- Max. Power: 2 MW
- Nominal Operation: 1.0 MW
- Flux $3x10^{13}$ $cm^{-2}.sec^{-1}$
- Coolant water

Facility :

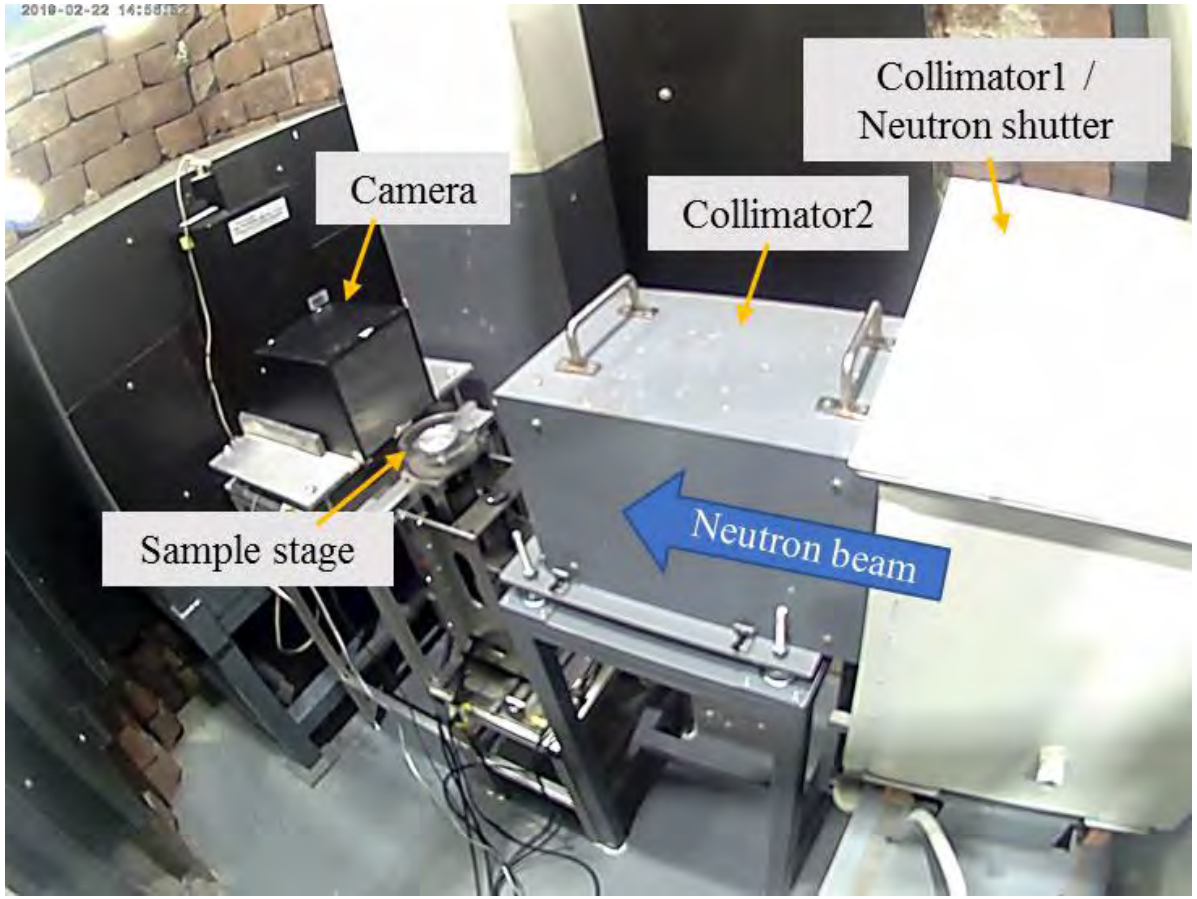
- Two-section pool with movable core
- Small holes in grid plate for temperature & axial flux measurement
- Irradiation positions: In-core and Out-core
- Large size irradiation facilities in Thermal Column
- 3 Neutron beam ports: Neutron radiography/ PGNAA / Neutron Scattering

Main utilization :

- Radioisotope production (mainly Sm-153)
- Gems Irradiation (In-core irradiation)
- Neutron Activation Analysis (commercial service)
- Researches (NAA/ Neutron radiography/ Material irradiation, etc.)
- Training and Public Tour (on request)


Large Sample Neutron Activation Analysis (LSNAA)
THERMAL COLUMN
1.5 kg (Jasmine rice)
Prompt Gamma Neutron Activation Analysis (PGNAA)
6 INCHES NEUTRON BEAM PORT
VOID TANK
6 INCHES NEUTRON BEAM PORT
Neutron Diffraction (Decommissioned)
8 INCHES NEUTRON BEAM PORT
8 INCHES NEUTRON BEAM PORT
Neutron Radiography
OUT CORE IRRADIATION HOLES
TA
A4
A1
CADMIUM COVERED IRRADIATION HOLES
ROTARY SPECIMEN RACK
max. neutron flux
~ 5 x 10^13 n cm^-2 s^-1
WET TUBE

Neutron imaging at TRR-1/M1



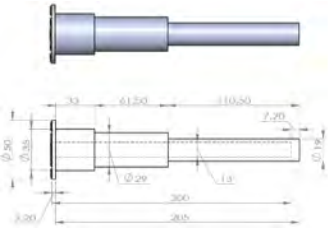
TINT is now capable of neutron tomography. The upgrade of the camera and lens system is planned for 2021.

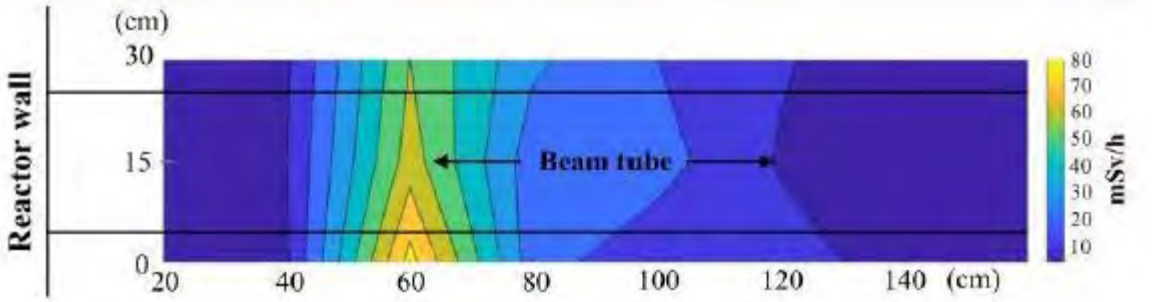
Neutron Scattering Activity

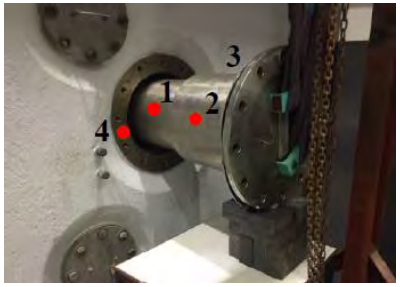
- Installed in 1968
- Low neutron flux (~ 8 x 10^3 n/cm^2-s)
- High background, limited space, etc.

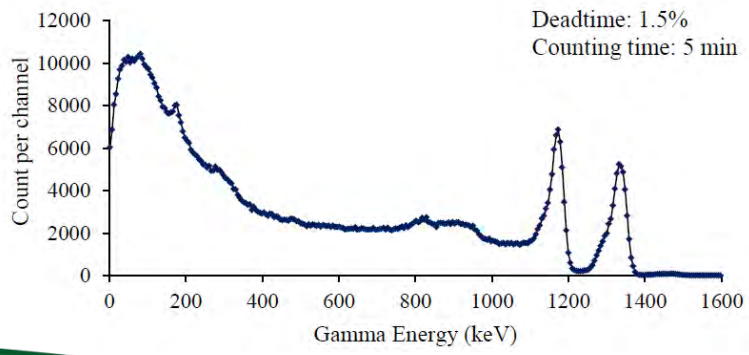
Check point	Elemental concentrations (%)				
	Fe	Cr	Ni	Mn	Cu
1	71.28	17.81	7.84	1.51	0.30
2	71.20	17.79	7.71	1.58	0.32
3	71.35	17.83	7.80	1.51	0.31
4	63.75	17.47	7.79	1.68	0.23

Decommissioning effort









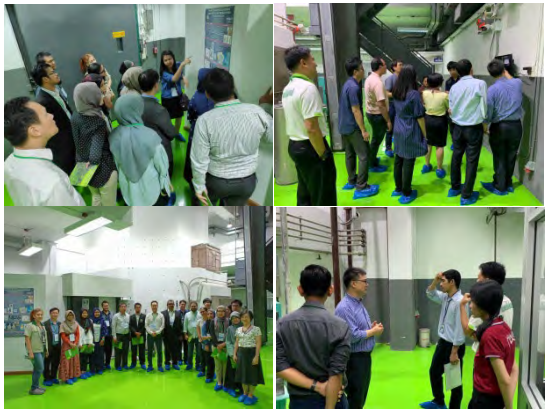
Effort to establish new neutron diffraction facility is planned start in 2020 under TINT-KAERI MOU.

Thailand Neutron Scattering committee at TINT

1. Roppon Picha (R&D Division)
2. Kanokporn Boonsirichai (R&D Division)
3. Suthipong Boonmak (Reactor Center)
4. Kanchalika Dechates (International Cooperation Section)
5. Jatechan Channuie (Reactor Center)
6. Apichate Maneewong (Irradiation Center)

Expand of Neutron Scattering Community

- International Nuclear Science and Technology Conference-INST2019

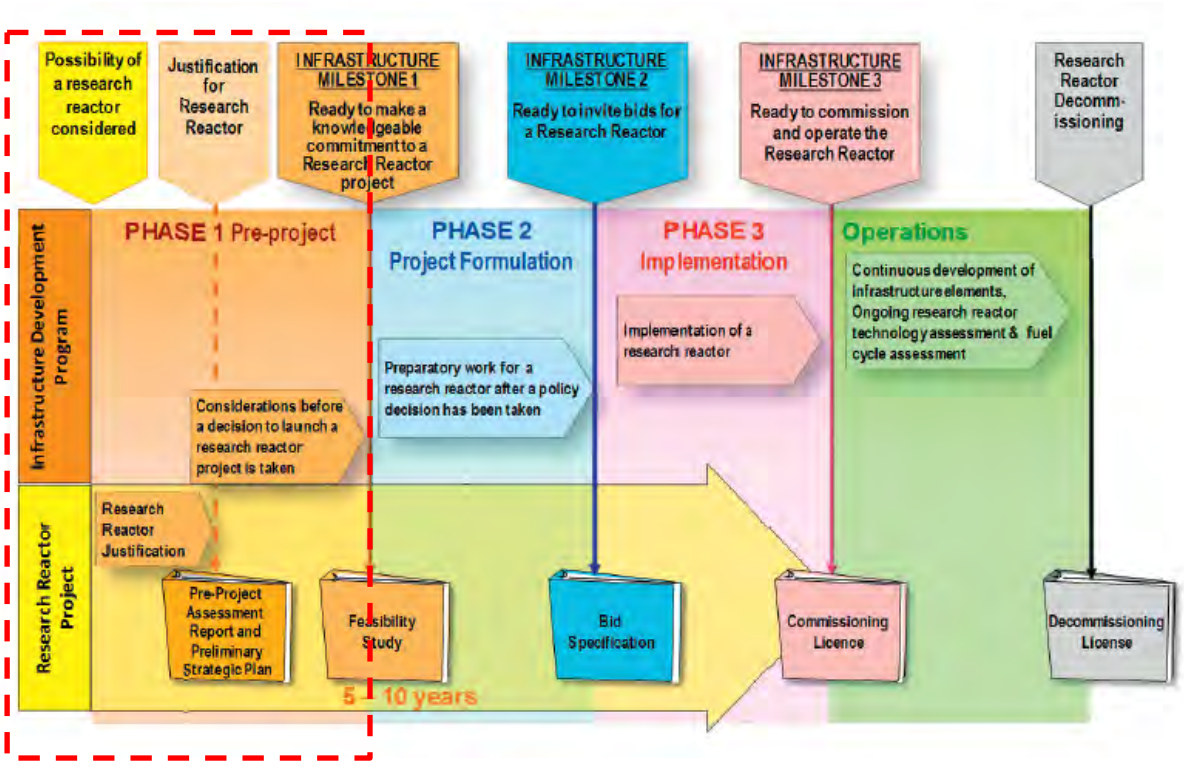


- During February 4-6, 2019
- 120 submitted presentation
- 300 attendees
- Newton Neutron Applications (NNA) Workshop
- Neutron Scattering Seminar with KAERI

- Transfer knowledge and experiences to university

- seeking for future collaboration
- evaluated the interest in neutron diffraction utility among the participants

New Research Reactor Status



- The project is in the preparatory stage for proposing the government to approve.
- An Environment and Health Impact Assessment (EHIA) study has yet to be completed.
- Public hearings, which are part of the EHIA, started early in this year.
- The survey needs for various uses from stakeholder is in progress

Conclusions

- Neutron tomography and Neutron Diffraction are the main activity of neutron beam application at TINT
- expected that neutron scattering community will expand in near future.

Thank You