Newsletter From AONSA

The Asia-Oceania Neutron Scattering Association

Volume 6, No. 1(April, 2014)

Index

President's message

By Prof. Wen-Hsien Li

(Department of Physics

National Central University

Jhongli, Taiwan)

Driving the AONSA Platform

Thanks to the guidance of Professor Mahn Won Kim, Professor John W. White, Professor Yasuhiko Fujii and their wonderful teams, AONSA has, in short six years, developed into a very active international collaborative Platform. This Platform has recently strengthened by the endorsement of the China Neutron Scattering Society (CNSS) as the sixth regular member to contribute in the activities. This Platform is also strengthened by the recently initiated "AONSA Young Research Fellow" program, which aims to bring opportunity in neutron scattering to young generation. Although our active members already include User Societies from Australia, China, India, Indonesia, Japan, Korean, Malaysia, Singapore, and Taiwan. There is no doubt that there are still very many human resources in our Regions for us to reach out and bring them in as members of the AO neutron family.

Review of the AONSA prize 2015, Search for the AONSA Young Research Fellows 2015, and the 2014 AONSA Neutron School in Indonesia are the central issues for us to discuss and events for us to join in the upcoming 13th EC meeting in October, 2014. The 2nd regional conference AOCNS-2015 is the major event for us to meet in Sydney, besides the determination of the host society and location of AOCNS-2019 in the 14th EC meeting in July, 2015. The 2015 AONSA Neutron School will be hosted by JSNS in Tokai in October or November time 2015, coupled to the 15th EC meeting to discuss AONSA Young Research Fellows 2016 and the EC and Board members of the next AONSA Presidency term.

It is my great pleasure to have Professor Sung-Min Choi, Professor Christophe Ling, Dr. Dongfeng Chen, and Professor Hideki Seto agree to serve in the Board. Their contributions together with Professor Yasuhiko Fujii's continuation to guide the Board and your support are the promise to drive the AONSA Platform effectively and creatively in a broader manner in this fourth AONSA Presidency term. I welcome all the Executive Committee members and look forward to working with all of you as President.

Professor Wen-Hsien Li is a Full Professor of the Physics Department, National Central University, Taiwan. He has been the Head of the Department of Physics, National Central University from 1997 to 2000; and the Director of Center for Neutron Beam Applications (CNBA) of National Central University from 2006 to 2012.

Wen-Hsien graduated from Soochow University, Taiwan with a BSc in physics in 1977 and from Northeastern University, Boston, USA with a PhD in Physics in 1986. He has fostered neutron science in Oak Ridge National Laboratory (ORNL) and National Institute of Standards and Technology (NIST), USA. He participated heavily in converting the BT-2 triple-axis spectrometer at NIST into a polarized spectrometer using Heusler alloy and home-made spin flipper in 1986. He leads the international cooperative project between Taiwan and Australia to construct the Cold Neutron Triple-axis Spectrometer SIKA at Australian Nuclear Science and Technology Organisation (ANSTO). He contributed very heavily to the birth and operation of Taiwan Neutron Science Society (TWNSS) and Center for Neutron Beam Applications of National Central University. http://www.neutron.ncu.edu.tw/TWNSS/

His research is currently focused on quantum nanoparticle, iron-based superconductor and multiferroic, using neutron scattering, Raman scattering, and other techniques to elucidate the interplay between the superconducting and magnetic degrees-of-freedom of these systems.

Vice President's message

By Prof. Sung-Min Choi

(Department of Nuclear and Quantum Engineering KAIST)

Investment for the Future

AONSA has been very successful over the last 6 years, providing an excellent platform for discussions and activities for promoting neutron science and technology in the Asia-Oceania region, and working closely with our counterparts in Europe and America (ENSA and NSSA, respectively) for worldwide cooperation. Under the former Presidency led Prof. Yasuhiko Fujii, AONSA welcomed the Chinese Neutron Scattering Society (CNSS) as a new regular member, was well represented and recognized at the International Conference on Neutron Scattering in 2013 (ICNS 2013), Edinburgh, UK, with more than 150 participants from the Asia-Oceania region and the AONSA Regional Meeting and the Award Ceremony/Lecture for the AONSA Prize 2013 held as a part of the conference program, and successfully attracted the ICNS 2017 into the Asia-Oceania region, Korea (Daejeon).

A new Presidency led by Prof. Wen-Hsien Li (2014-2015) just started and we are looking forward to the continuing success of AONSA by maintaining, improving and expanding AONSA activities. At the 12th EC Meeting held in Daejeon, Korea, last February, the AONSA Young Research Fellowship Program (initiated by the former President Prof. John White as a "Next Step" for AONSA) was established with strong supports from major neutron facilities in the region. This program will provide financial supports for talented young scientists in our region to visit major neutron facilities in the region for an extended period of time for collaborative research. We think that this is an excellent investment for the future of neutron science and technology in the region, and we look forward to having the first group of Fellows selected in this year.

[Professor Sung-Min Choi]

Prof. Choi studied at Seoul National University for his BS and MS, and received his PhD at MIT in 1998. His career and activities after his PhD are as following: SANS instrument scientist at the NIST Center for Neutron Research (1998-2001); Professor of Nuclear and Quantum Engineering (NQE), KAIST (2001-current); Acting Head of NQE, KAIST (2010-2011); Joint Professor of KAIST Institute of Nano Century (2007-current) and Physics (2010-current) at KAIST; Visiting Professor of NSE at MIT (2014-current); Director of the BAERI (2005-2011); Director of Advanced Center for Nuclear Excellence (2012-current); Secretary of KNBUA (2003-2009); Secretary of AONSA (2010-2013); Secretary of Korean Nuclear Society (2011-2013); Member of HANARO Steering Committee (2006-current); PI of 40m SANS Development at HANARO (2003-2010); Chair of the 1st AONSA Neutron School held at KAIST (2008); Member of J-PARC/NSPRC (2008-current) and CROSS/PEC (2011-current); Member of ORNL Neuron Sciences SRC Low-Q Sub-committee (2013-current)
His recent research interests have been focused on the molecular self-assembling phenomena in soft matter to develop new nanostructured functional materials, for which SANS, Neutron Spin Echo, SAXS, and GISAXS techniques are used as main tools.

Secretary's message

By A./Prof. Chris LING

(University of Sydney Australia)

As AONSA Secretary, my main role is to organise AONSA EC and Board meetings in conjunction with the local hosts on each occasion, and to provide administrative support to the President and Vice President. I have a reasonable understanding of this role from my experience as Public Relations Officer over the last two years. However, most importantly, I will have the advantage of building on the outstanding work of Sung-Min Choi as the previous Secretary. I look forward to working with you over the next two years in this capacity.

Brief CV

•BSc, University of Melbourne (1992–1994)

•BSc(Hons), Australian National University (1995)

•PhD, Research School of Chemistry, Australian National University (1996–1999)

•Postdoctoral Fellow, Materials Science Division, Argonne National Laboratory, USA (1999–2001)

•Physicist, Diffraction Group, Institut Laue-Langevin, France (2001–2004)

•Lecturer / Senior Lecturer / Associate Professor, School of Chemistry, The University of Sydney (2004–)

I am the immediate Past President of ANBUG, Chair of the 2nd AOCNS to be held in Sydney in 2015, and am also currently Secretary of the Society of Crystallographers in Australia and New Zealand (SCANZ).

My research interests are primarily solid-state oxide chemistry / condensed matter physics, with a particular emphasis on complex magnetism, ionic conduction and modulated structures. All of these materials and phenomena are ideally suited to study by neutron scattering techniques (primarily diffraction, but also inelastic and sometimes small-angle scattering), hence my intensive use of neutrons and my close involvement with the neutron user community.

Treasurer's message

By Prof. Dongfeng Chen

(China Institute of Atomic Energy)

Neutron is a bridge!

I believe that Neutron is truly a wonderful bridge to link our community in the Asia-Oceania region, and I am so happy to serve as the Treasurer for AONSA in next two years. In the last several decades, there are so many advanced neutron source and instrumentations have been built in this region. We all see that the AONSA has been worked successfully on promote neutron science in this region by series of activities, such as Neutron School, AOCNS, EC, Board meeting, and also linked with facilities. Indeed, we started to work very hard to organize Chinese Neutron Scattering User Community as early as the year of 2004. We also worked very hard with our AONSA colleagues to join different activities, such as hosting several AONSA meetings in both Beijing and Dongguan. It was so great that China Neutron Scattering Society (CNSS) has also been built and joined AONSA under strong support from AONSA members. Currently, I still focus on Clean Energy related neutron research, and recently investigated series of new materials to meet the demands of global environmental and Energy Development strategy, such as novel hydrogen storage materials and negative thermal expansion materials by neutron scattering technique. I am looking forward to working with you in next term, and also would like to send my warmest greeting to readers of this Newsletter as the Vice president of CNSS.

Prof. Dongfeng Chen is a Senior Professor and Director of Department of Nuclear Physics, China Institute of Atomic Energy（CIAE）. He is also in charge of leader of neutron scattering project of China Advanced Research Reactor and vice president of China Neutron Scattering Society（CNSS）. He studied in Jilin University for his BS (1991), and received his MS (1995) and PhD (1998) in CIAE. In October of 2000, he came back to CIAE after finishing two-year post-doctoral research in Argonne National Laboratory, USA, and now is serving as the chief scientist of national 973 project, "The Key Technology of Neutron Beam on CARR". Currently, he is also served as invited professor in both Peking University and Jilin University. His main research focuses on neutron scattering instrumentation design and construction. He lead to build 7 neutron instruments on CARR in last decade, and all of them have collected original neutron data successfully in August of 2012.

Public Relation Officer's message

By Prof. Hideki SETO

(Institute of Materials Structure Science / J-PARC Center High Energy Accelerator Research Organization)

One more step forward

Public Relations Officer of the AONSA Board has been created 2 years ago and the former officer, Prof. Ling at The University of Sydney, has done great effort especially on the renewal of the AONSA web site and the overseeing the AONSA newsletter. Following his and the last AONSA Board, my role is the interface between the scientists who use neutron beam facilities and the broader regional community.
In the current two-year term staring from this year, the AONSA will have considerable amounts of activities to promote neutron science in this region. The 5th AONSA Neutron School will be held in Indonesia this autumn, which celebrates International Year of Crystallography (IYCr2014). In the next year, The 2nd AOCNS will be held in Australia. The preparation for the next ICNS 2017 in Korea has been started. These events will be good opportunities to connect neutron users and facilities, as well as to show activities of neutron science in Asia-Oceania region.
Another important task of Public Relations Officer of AONSA should be promotions of neutron science to broader scientific fields. In this decade, new neutron sources such as HANARO, OPAL and MLF in J-PARC have been launched and the progresses of their performance are going on. In this situation, AONSA should play a central role to introduce possibilities of neutrons especially for young scientists. I am very happy to contribute for AONSA to move forward the neutron sciences in this region.

Prof. Seto started his academic carrier from 1989 in Hiroshima University after the undergraduate studies at Kyoto University and the PhD studies under the supervision of Prof. Yasusada Yamada at Osaka University. He contributed to construct the first Neutron Spin Echo spectrometer in Asia-Oceania region, ISSP-NSE at JRR-3, and was responsible of this instrument from 1997 to 2002. He moved to

Department of Physics, Kyoto University in 2002 as an Associate Professor. He has been a Professor of Institute of Materials Structure Science in High Energy Accelerator Research Organization (KEK) from 2008, and also been belonging to J-PARC Center.

His research interests are primarily soft matter physics. His main tools are small-angle neutron scattering, neutron spin echo spectroscopy as well as small-angle X-ray scattering.

Report on the 12th AONSA EC Meeting in Daejeon

The 12th AONSA Executive Committee (EC) Meeting was held at the Daejeon Convention Centre, Daejeon, Republic of Korea, on February 21, 2014. The meeting was attended by 14 participants and was opened by President Wen-Hsien Li, who acknowledged our Korean colleagues - notably Kye Hong Lee and Ms Youran Kim - for their great efforts in organising the meeting. He also extended his thanks to the past Presidents of AONSA for their stewardship of the Association, and invited the new EC and Board members to introduce themselves.

A broad range of topics were actively discussed in the morning, including the AONSA Prize, the 6th AONSA Neutron School in 2014 in Indonesia, the 2nd AOCNS in 2015 in Australia, ICNS2017 in Korea, AONSA Newsletters, the AONSA Homepage update, the new AONSA Young Visiting Fellows scheme, possible collaborations with ICSU, IUCr and AOFSRR, and AONSA Activities for International Year of Crystallography.

AONSA member neutron associations and affiliated community reports were delivered in the afternoon, along with a summary of facility reports and a special facility report on HANARO.

After the EC meeting, a tour of HANARO was organised for all the EC participants, followed by an excellent dinner together with our Korean colleagues hosted by HANARO/KAERI.

Chris Ling
Secretary of AONSA

The 12th AONSA EC Meeting at the Daejeon Convention Center

Call for Application of AONSA Prize

The AONSA is inviting nominations for the AONSA Prize to recognize an outstanding research career with a significant impact or contribution to the use or development of neutron science or technology in the Asia-Oceania Region.

The AONSA Prize was established in 2010 and is awarded every two years. The first two Prizes were awarded to Prof. Noboru Watanabe (KEK) in 2011 and Prof. Balebail Anantha Dasannacharya (BARC) in 2013.

Anyone may submit one nomination or a seconding letter for the AONSA Prize 2015 by following the rules as described below by **June 30, 2014**. Please send nominations electronically to the Chair of the Selection Committee (sungmin@kaist.ac.kr). The Prize winner(s) for 2015 will be announced in November 2014. The Prize Ceremony will take place and the Prize winner(s) will deliver the Prize Lecture during the 2nd Asia-Oceania Conference on Neutron Scattering (the 2nd AOCNS, 19-23 July 2015, Sydney, Australia).

Selection Committee for the AONSA Prize 2015

S.-M. Choi (Chair, KNBUA), H. Chou (TWNSS)
T. Kamiyama (JSNS), E. Kisi (ANBUG)
X.-L. Wang (CNSS), S. M. Yusuf (NSSI)

AONSA Prize

(Established on Oct. 5, 2010)

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.

1. Rules

a. The Prize shall ordinarily be awarded to one person but may be shared by no more than three persons when all the recipients have contributions to the same accomplishment. Recipient(s) should receive the AONSA Prize only once.

b. The Prize consists of a certificate citing the contributions made by the recipient(s) and a monetary prize. The amount shall be decided by the AONSA Executive Committee (hereafter referred to as the EC). Where the award is shared, the prize money shall be equally divided amongst recipients

2. Nomination and Eligibility

a. Nomination shall be opened to anyone whose work has significantly impacted or contributed to the Asia-Oceania region.

b. Anyone (not a member of the AONSA Prize Selection Committee (hereafter referred to as the SC)) may submit one nomination or a seconding letter for the Prize.

c. A nomination should include:

- A letter of not more than 5,000 characters evaluating the nominee's qualification for the Prize and identifying the specific work to be recognized.
- A brief curriculum vitae
- A short list of major publications
- Up to five reprints/preprints
- At least two, but not more than four seconding letters

d. Nomination should be electronically submitted to Chair of the SC by the deadline issued by the SC.

e. Nomination shall be active through two review cycles (4 years). Nominations may be updated while still active.

3. Selection Committee

a. The SC shall consist of six members chaired by the AONSA Vice President while other five 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).

b. The SC shall be independent of the EC. Nominations shall be treated in confidence within the SC.

c. 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 six members can cover research field(s) for reviewing nominations submitted. Co-opted member(s) shall be approved by the EC.

d. The SC members shall be posted on the home page of AONSA when the SC issues the call-for nominations. The co-opted member(s) shall also be posted.

e. The SC shall submit the name(s) of recipient(s) with a report of nomination process to the EC prior to five months to Prize Ceremony at the quadrennial Asia-Oceania Conference on Neutron Scattering (AOCNS) or the quadrennial International Conference on Neutron Scattering (ICNS), both held in an interval of two years.

f. The SC shall carry out AONSA Prize Ceremony at AOCNS or ICNS.

6^{th} AONSA Neutron School

Nowadays, neutron scattering is regularly used in modern science to understand material properties on the atomic and molecular scales. It was originally developed as a tool for physics, the method now has led to advanced characterization methods in many areas of science, from clean energy and the environment, pharmaceuticals and healthcare, through to nanotechnology, materials engineering, etc.

Seeing as the largest research reactor in Indonesia (as well as one of the largest in the region) has been established in producing the neutron beam then the neutron scattering facilities equipped by 7 sophisticated instruments were installed in utilizing the neutron produced by the 30MW Multi-Purpose Reactor (RSG) G. A. Siwabessy. Those neutron instruments are able to characterize the material structures and dynamics of materials from atomic level into macroscopic scale.

As the one of the neutron scattering research communities in the region, an association in neutron scattering community, AONSA (Asia-Oceania on Neutron Scattering Association) has been formally formed and then established in 2008. This association accommodates the neutron scattering societies and facilities in the region and has a regular activity, i.e. neutron school to promote the neutron science for the young generation, scientists and students. The AONSA Neutron school has been organized regularly every year since 2008 in KAIST Korea, ANSTO Australia (2009), BARC India (2010), ANSTO Australia (2011) and CIAE - Peking University China (2012) as more than 200 young scientists have been exposed with the neutron scattering techniques.

Indonesia (BATAN) has been decided as the host of the AONSA Neutron School 2014 during the 9th AONSA Executive Committee (EC) Meeting held at Peking University, Beijing, China on October 27, 2012. This is a great opportunity as this year the AONSA Neutron School will be in part of the International Year of Crystallography 2014 (IYCr2014), the official program of the International Union of Crystallography, IUCr and UNESCO.

After the opening ceremony at the first day, a general lecture on crystallography using X-ray and neutron (the history, the impact on sciences and the future challenging issues) will be given as a part of celebrating the IYCr2014 in Indonesia. This school will also be merged with the International Conference in Materials Science and Technology 2014 (ICMST 2014) organized by BATAN as more than 250 participants are expected attend this join event, in the morning session. The rest of the first day of the school, general lectures on neutron scattering (including X-ray) will be delivered on materials science, biology and industrial applications. And about 50 participants will continue to join the school program (lectures, laboratory visit, experiment, data analysis and presentation) for a 5 full day.

We are very welcome for all students and lecturers to Serpong, Indonesia in the 6th AONSA Neutron School, October 12 – 17, 2014.

Edy Giri Rachman Putra
National Nuclear Energy Agency (BATAN) Indonesia
Principal of the 6th AONSA Neutron School

ICANS XXI: 21st International Collaboration on Advanced Neutron Sources

29th Sep – 3rd Oct 2014 in Mito, Ibaraki, Japan

Venue

・Ibaraki prefectural culture center
697 Higashikubo, Senba-cho, Mito, Ibaraki, Japan
www.ibarakiken-bunkacenter.com (in Japanese)

Key dates

・Call for abstract: 1st Mar. –1st May, 2014
・Early registration: 1st Mar. – 1st Aug., 2014
・Information of acceptance in web site: Jul. , 2014
・ICANS conference : 29th Sep. -3rd Oct. , 2014
・Proceedings will be published.

Brief History of ICANS

ICANS is an informal network of laboratories whose scientists are involved in developing pulsed neutron sources and accelerator based spallation neutron sources. The first ICANS meetings was held in 1977 at Argonne National Laboratory to formulate the goals and structure of the Collaboration. There have been twenty major ICANS meetings up to 2012. The next meeting, the 21st, will be held in J-PARC.

Honorary Chair: Noboru Watanabe
Chairman: Masa Arai
Chair of Local Organizing Committee: M.Arai
Conference Secretary: M. Futakawa (Chief)

Discussion items

1. Blue Sky Session (Panel discussion)
   ・Future perspective in neutron sources
2. Facility Session
   ・Prominently progressed facilities
   ・Strategies for next steps at facilities
   ・Advances in coming facilities
3. Target and Moderator Development
4. Integrated Interface
   ・Target/moderator/instrument integrated interface, etc.
5. Accelerator and Target Interface
6. Neutron Instruments
7. Devices
8. Sample Environments
9. Shielding
   ・Target Station, beam line shielding, etc.
10. Data Acquisition and Analysis
11. New Moderator Concept and Compact Source
12. Safety & Operation for High Power Facilities

Advisory Committee
Alexander Ioffe, Andrew Taylor, Colin Carlile, Chung Loong, Feri Mezei, Jack Carpenter, Jim Yeck, Kelly Beierschmitt, Kurt Clausen, Mark Bourke, Roger Pynn, Rolando Granada, Wagner Werner, Yoshiaki Kiyanagi

Program Committee
Bertrand Blau, Dave Baxter, Dimitri Argyriou, Eric Pitcher, Guenter Muhrer, Hesheng Chen, J. Bermejo, Jorg Voigt, Ken Andersen, Kevin Jones, Masa Arai, Masatoshi Futakawa, Michihiro Furusaka, Robert McGreevy, Sasha Belushkin, Toshiya Otomo

http://j-parc.jp/researcher/MatLife/en/meetings/ICANS_XXI/index.html

J-PARC

The 13th Japan-Korea Meeting on Neutron Science (Feb. 16-18, Buyeo, Korea) and The 1st Workshop on Hydrogen and Carbon Dioxide Storage (Feb. 19-20, Daejeon, Korea)

The 13th Japan-Korea Meeting on Neutron Science co-hosted by Korea Atomic Energy Research Institute(KAERI) and Korea Nuclear Society was held at Lotte Resort in Buyeo, Korea on February 16-18, 2014. This annual meeting has been started at KEK in Tsukuba, Japan in 2000 to enhance communications and collaborations between the neutron science experts from both countries. There were 80 attendee from Japan(22) and Korea(56), including two participants from UK(1) and USA(1). During the opening day, two tutorial lectures, titled as "Neutron Scattering Method for Dynamics of Matter" and "Structural Analysis of Disordered Materials Using High-Q Diffractometer", were given by Prof. Jae-Ho Chung(Korea University, Korea) and Dr. Kentaro Suzuya(J-PARC/KEK, Japan), respectively. The second and third day consist of seven technical sessions (Facility report, Hard matter 1 & 2, Soft matter 1 & 2, Instrumentation, and Hydrogen/Engineering) and one poster session with 22 oral and 20 poster presentations. At the regular business meeting, the representatives from both countries discussed a proposal on building a systematic framework between KAERI and JAEA for the promotion of scientific collaboration such as scientist/students exchange and joint experiment as well as collaboration on instrumentation. The next meeting will be held on February 2015 in Tokai, Japan, host city of J-PARC.

As a satellite workshop of the Meeting, the 1st Workshop on Hydrogen and Carbon Dioxide Storage was held at KAERI in Daejeon, Korea on February 19-20. This workshop was hosted by the hydrogen storage research group from KAERI, Soongsil University, and Gachon University for the purpose of research collaboration and building a solid research community. About 70 attendees from 5 countries(Korea, Japan, UK, USA and Singapore) participated the seven technical sessions(Zeolite, Neutron Scattering 1 & 2, MOF-1, 2 & 3, and Calculation) and one poster session. Among the 17 invited talks, 5 talks discussed *in-situ* neutron scattering experiments conducted in HANARO(Korea), J-PARC(Japan), ISIS(UK), and NIST(USA). These talks attracted a lot of attention because neutron experiments were new to most attendees. At the end of the workshop, a research community named as "Nano-Porous Materials Research Community" was inaugurated with 50 starting members(leader : Dr. Yong Nam CHOI, dragon@kaeri.re.kr) to strengthen their collaboration and communication. Practical knowledge on *in-situ* neutron scattering at HANARO and other international facilities (J-PARC and ISIS) will be very useful for basic hydrogen and CO_2 storage research. The community will hold the regular workshop every second year, and also host a mini-symposium or seminal meeting on special occasions.

Dr. Yong Nam CHOI

KAERI, Korea

The 13th Japan-Korea Meeting on Neutron Science (Feb. 16-18, 2014)

The 1st Workshop on Hydrogen and Carbon Dioxide Storage. (Feb. 19-20, 2014)

7th Asia-Oceania Neutron Facility Directors Meeting,

The 7th Asia-Oceania Neutron Facility Directors Meeting (AONFDM) was held on the 20th, February, 2014, at Daejeon Convention Center, Daejeon, Korea. The participants were Kye Hong Lee (HANARO), Mitsuhiro Shibayama (JRR-3), Hideki Seto (for Masa Arai; J-PARC), and Jamie Schulz (for Rob Robinson; OPAL), together with two observers from AONSA; Wen-Hsien Li (President) and Yasuhiko Fujii (Former President). The agenda was as follows: (1) Facility Report and (2) Others, i.e., AONSA Visiting Fellows, Facility home page, AONSA Neutron School, and Secretary and the next Chair.

(1) **Facility Report**: JRR-3 was required to enforce a full legal licensing procedure. JAEA expects JRR-3 to resume in JFY2015. JRR-3 has disclosed a home page of publication list. http://jrr3uo.jaea.go.jp/jrr3uoe/results/index.htm. J-PARC reported Hadron Experimental Facility accident of the 23rd, May 23, 2013, and Radiation Accident Drill. J-PARC also reported that user experiments started from Feb. 17 (from 100kW to 220kW). J-PARC will keep 300kW until summer shutdown, and will start with more than 500kW, 88days (2014A). Scientific output was about 80 papers in 2013. OPAL has now 3 new instruments in OPAL 2014-2, i.e., KOOKABURRA (USANS), PELICAN (ROF), DINGO (radiography/ tomography/imaging). These instruments will be in proposal round in 2014. OPAL has 6 people per instrument in average (scientists, technicians, etc.). OPAL will have a long shutdown planning during 2018 – 2020. SIKA (Taiwan triple-axis instrument) obtained first inelastic scattering data. Papers from OPAL are now 360 papers from 8 instruments (96 in 2012, 110 in 2013). Sample environment workshop will be held at ISIS in 2014 or 2015.

(2) Others: The issue of AONSA Visiting Fellows was extensively discussed and the results were reported at AONSA EC meeting. The discussions include; 1. targeting new leaders, 2. sharing instrument development & new uses, and 3. continued training for high quality candidates Asia-Oceania centers. Three major facilities, J-PARC, HANARO, and ANSTO, will accept AONSA Visiting Fellows. The program start from 2015 (before enough to prepare collaboration). Facility Home Page has been updated. http://neutronsources.org/neutron-centres/africa-asia-and-oceania.html

Mitsuhiro Shibayama
The University of Tokyo

7th Asia-Oceania Neutron Facility Directors Meeting, at Daejeon, Korea

Neutron Scattering Society of India

Neutron Scattering Society of India (NSSI) co-organized a pre-conference School on Neutron Scattering at BARC, Mumbai during February 4-8, 2014 and a Conference on Neutron Scattering at Indian Institute of Science Education and Research (IISER), Pune, during February 10-12, 2014.

The Conference covered all important aspects of neutron scattering including facilities, science and applications. A particular emphasis was given on the application of neutron scattering in the topics of strongly correlated electron systems, functional materials, soft matter and biological systems, thin films and multilayers, and nanomaterials. There were more than 125 participants including 9 invited speakers from abroad (France, UK, Italy, Switzerland, Japan and Korea). There were 31 invited talks and about 100 poster presentations. The Conference provided very useful platform for collaborations among the national and international neutron scattering researchers. Four best posters were awarded by NSSI.

Photo caption: Prof K.N. Ganesh, Director, IISER, Pune, is addressing the audience during the inaugural function. Others (from left) are Dr. V.K. Aswal, Prof S.L. Chaplot, Prof Helmut Schober, Prof R. Mukhopadhyay, and Dr. Sunil Nair.

A group photo of participants of CNS2014 at the IISER, Pune, Feb 10-12, 2014

The Pre-conference Neutron School on "Neutron as Probes of Condensed Matter" (XVI in the series) comprised theory lectures and hand-on experiments at Dhruva reactor. Apart from the faculty of BARC and UGC-DAE CSR, some of the foreign invited speakers to the Conference delivered lectures in the School.

A group photo of participants of the Pre-conference Neutron School held at BARC, Feb. 4-8, 2014

Report from Chinese Neutron Scattering Society (CNSS)
The First Chinese Conference on Neutron Scattering

After the Workshop on the Application of National Neutron Facilities have taken place for three years since 2009, the First Chinese Conference on neutron scattering sponsored by the Chinese Neutron Scattering Society (CNSS) was held in Dongguan, on December 10-12, 2013, which was jointly organized by Chinese Spallation Neutron Source (CSNS) and China Institute of Atomic Energy (CIAE). This conference was primarily intended to bring together Chinese scientists who develop neutron scattering instruments and methods, perform characterization experiments and data analysis and promote the cooperation and academic exchanges among scholars from the basic research community and relevant industry experts, and accelerate the development of neutron scattering in China.

More than 160 participants, from over 40 universities and institutes in China and abroad, had attended the conference. The conference reported the latest progress of CSNS, the Neutron Scattering Platform at CARR (China Advanced Research Reactor) and CPHS in Tsinghua University. Forty-six lecturers shared their work and interests with five topics respectively, on diffraction, inelastic scattering, large-scale matter, instrumentation, and other techniques relevant to neutron. The attendees also had taken a visit to the construction sites of CSNS. After this successful start of the **Chinese Conference on Neutron Scattering**, we will hold the national conference every year.

Progress of CSNS

Presently, the linac tunnel, office building and accessories buildings have been completed, the bases of synchrotron circle and neutron scattering hall have been prepared, the linac components were also installed in September 2013. The facility is expected to burst the first neutron beam in the second half of 2017, and to be accepted for user operations in 2018, 6.5 years from the initial construction (http://csns.ihep.ac.cn/).

On behalf of Chinese Neutron Scattering Society(CNSS), CSNS hosted the 11th AONSA Executive Committee Meeting & Facility Directors Meeting, November 16-17, 2013, and the 1st National Conference on Neutron Scattering and Workshop on Applications of National Neutron Facilities－2013 in December 10-12, 2013 with more than 120 potential users participating. CSNS still offers a small budget for Chinese users to carry out neutron scattering experiment around the world.

Progress of the Neutron Scattering Platform at CARR

At the first phase of Neutron Scattering Project at CARR, the nine instruments complete construction and are under commissioning. At the second phase, five instruments are being designed and under construction. Furthermore, the third phase instrument proposal was handed in and under review procedure.

At the end of 2013, CARR run 42 hours with 20 MW. During the reactor operation, all of the instruments around the reactor were optimized and got their diffraction patterns, even phonon dispersion curves. The experimental results look quite promising, but they need more beam time to achieve further improvement and identification.

As one of neutron sources in China, CARR involves and supports the activities related to users, such as annual user meeting organized by China Neutron Scattering Society (CNSS). Furthermore, CARR encourages the users to involve the instrument construction and five institutes/universities in China have cooperated with CIAE to build their instruments.

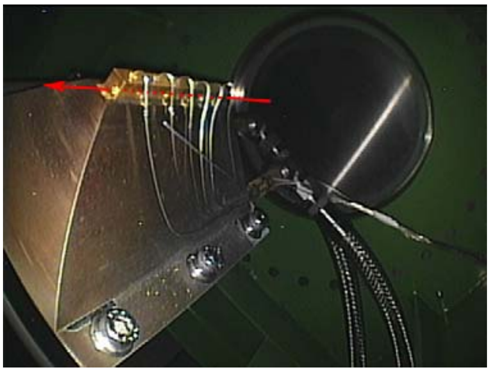
Dongfeng Chen
Vice President of CNSS

Fangwei Wang
Secretary of CNSS

Report from Japan Society for Neutron Science

We will outline, here, the accident that occurred at 11:55 on May 23rd, 2013 in the Hadron Experimental Facility of J-PARC. Protons were extracted from the 30 GeV synchrotron in the unexpectedly short period of 5 msec, which was 1/400 of a normal extraction period, and were injected to the gold target. Due to this abnormal injection, partial evaporation occurred in the target, and radioactive materials produced and accumulated in the target were leaked out to the Hadron experimental hall because of insufficient airtightness of the primary beamline. Although an increase in the radiation level up to 4 μSv/hr was observed in the hall, no immediate evacuation actions to this incident were taken and as a result, 34 persons in the hall had internal and external radiation exposure up to 1.7 mSv. Furthermore, due to an improper operation of the ventilation system the radioactive materials were released to the neighboring environment. Because of a large impact of the accident to the society, an operation of the entire J-PARC facilities was suspended, and accordingly all scheduled experiments in the Materials and Life Science Experimental Facility (MLF) had to be cancelled. We also were very sorry for the cancellation of the 6th AONSA Neutron School in Tokai.

Putting the highest priority on the recovery of beam to users, the J-PARC staff members made every effort on developing preventive measures against recurrence of a similar accident. J-PARC center reformed the organization to enforce the safety management, held meetings to explain all about accident measures to local residents, improved and revised radiation safety regulations and operation manuals, and conducted safety trainings and emergency drills. Finally, a user operation at MLF resumed on February 17th, 2014. We are grateful to AONSA members for all your kind and strong support.



A picture of the gold target taken by a fiberscope after the accident. Rectangular shape (6 x 6 x 66 mm) gold was placed on a water-cooled copper-support. A red arrow shows the beam trajectory.

T. Kanaya, *President of JSNS*
M. Sugiyama*, Secretary of JSNS*
Y. Ikeda*, Director of J-PARC Center*

Facility Report from J-PARC

Restarted the user operation at MLF of J-PARC

We are very pleased to announce that after nine months of suspension, the user operation at the Materials and Life Science Experimental Facility (MLF) of J-PARC was resumed on February 17. Although we are on the way to full recovery of the entire facility, this is a major milestone for the J-PARC Center.

Our J-PARC staff greatly appreciate your support, encouragements, useful suggestions, critical comments and also patience while we have been in a tough time.

Improvement and maintenance of the neutron source

Various improvement and maintenances of the neutron source have been carried out during the long shut down period: In the 3-GeV proton beam transport line, two octupole magnets were newly installed to make the proton beam profile flatter so that it could suppress the pressure wave generated in the mercury target (figure 1). All magnets and beam line components were realigned.

The proton beam window was replaced with a new one using remote handling devices successfully for the first time (figure 2). Installation of a gas-liquid separator, replacement of a helium gas supplying device and pressure gauges with a shielding box are underway at the mercury circulation system to improve flow rate of gas-micro bubbles for mitigating pitting damage on the mercury target vessel. A compact accumulator having a bellows structure with enough pressure tightness against the design pressure of 2 MPa was manufactured and installed into the cryogenic hydrogen loop.

As for the spare components, fabrication of a coupled moderator and a reflector has been started.

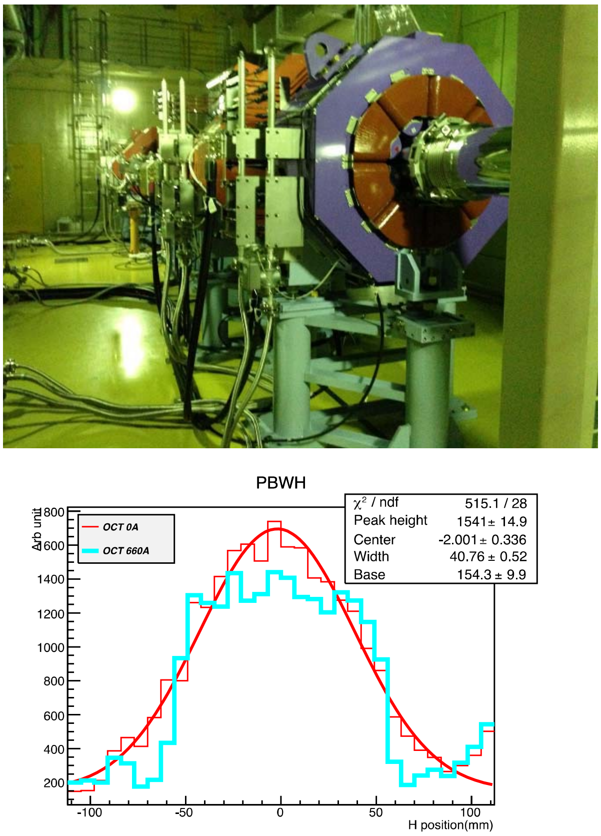


Figure 1 left) New octupole magnet. Right) Peak flattening of the proton beam (blue line).

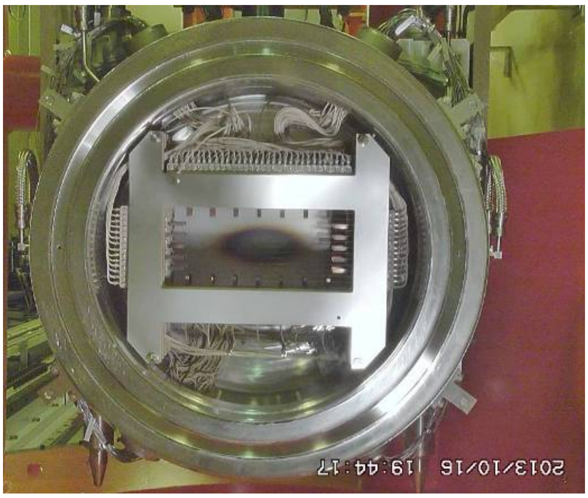


Figure 2 Proton beam window before the replacement.

Switching of intra-orbital spin excitations in electron-doped iron pnictide superconductors

S. Iimura and co-workers investigate the doping dependence of the magnetic excitations in the two-superconducting-dome system $LaFeAsO_{1-x}D_x$. Using inelastic neutron scattering at BL01 4SEASONS, spin fluctuations at different wave numbers were observed under both superconducting domes around 0.1 and 0.4 but vanished at 0.2 corresponding to the *Tc* valley. Theoretical calculations indicate that the characteristic doping dependence of the spin fluctuations is rationally explained as a consequence of the switching of the two intra-orbital nestings within Fe-3$d_{YZ,ZX}$ and Fe-3d_{X2-Y2} by electron doping. The present results imply that the multiorbital nature plays an important role in the doping and/or material dependence of the of the iron pnictide superconductors. This result was published on *Phys. Rev.* **B88,** 060501(R), 2013.

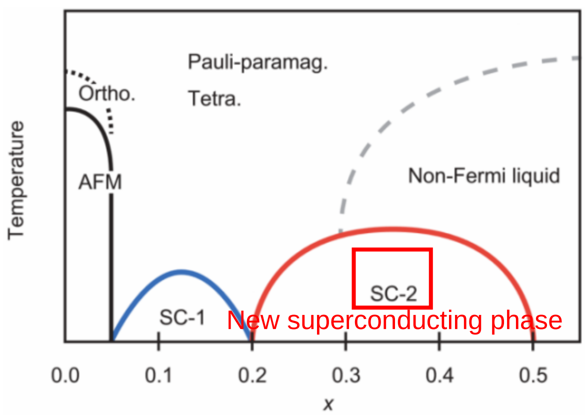


Figure 3 Schematic phase diagram of $LaFeAsO_{1-x}H_x$. Dotted and solid black lines show structural and AFM transitions,

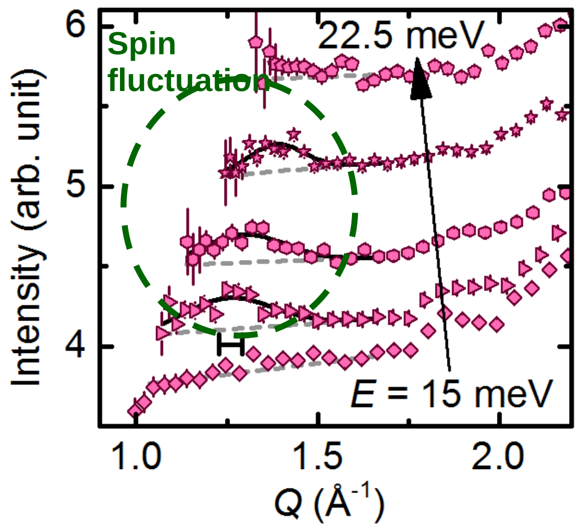


Figure 4 Constant energy scans of $LaFeAsO_{1-x}D_x$ with x=0.4 at T=7 K. A peak in the dotted green circle indicates the spin fluctuation of the SC-2 phase.

The 2nd International Symposium on Science at J-PARC

We would like to invite all colleagues, users, and friends to the Second International Symposium on Science at J-PARC (J-PARC 2014), to be held in Tsukuba on July 12-15, 2014. In this symposium, the fruitful outcomes from each J-PARC facility and all exciting results of cutting edge studies on the related science fields will be reported. Future directions for technology development and research will also be discussed, in order to optimize the application of J-PARC's future, 1 MW proton beam to various fields of research.

URL of the symposium website is as below. We are looking forward to seeing you there!
http://j-parc.jp/symposium/j-parc2014/

Takashi Ohhara
J-PARC

Report from the AONSA Office

A significant change has taken place with Ms Yukino Inoue stepping down from her role in the AONSA Office, in order to move to Osaka. Ms Chikako Doda formally took over Ms Inoue's role on 1 April 2014, after a 2-month overlap period. All of us in AONSA are extremely grateful for Ms Inoue's work in the Office over the last few years and wish her all the best for the future, and extend a warm welcome to Ms Doda.

On 24 February 2014, immediately following the 12th AONSA Executive Committee meeting in Daejeon, C Ling travelled to Tokai at the invitation of H Seto to meet with Y Inoue and C Doda from the AONSA Office, along with Y Fujii and M Arai. The dual purpose of the meeting was a face-to-face meeting of the new AONSA office team and to hand over management of the new AONSA website to the AONSA Office. The meeting was productive in both respects and the website is now being maintained and updated directly out of the Office.

Chris Ling
Secretary of AONSA

From left: Yasuhiko Fujii, Chris Ling, Chikako Doda, Yukino Inoue and Masa Arai

AONSA Calendar

Year 2013

Date(M/D)	Events
1/14-1/17	The 2nd International Symposium on Neutron Scattering/ISNS (Mumbai, India)
6/17-6/21	The 6th AONSA Neutron School (Tokai, Japan) (* ***Cancelled***)
7/8-7/12	The 10th International Conference on Neutron Scattering (Edinburgh, UK)
7/9	The 10th AONSA EC Meeting (Edinburgh, UK, during ICNS2013)
7/9	AONSA Regional Meeting during ICNS2013 (Edinburgh, UK)
7/11	ENSA-NSSA-AONSA Three Presidents' Meeting during ICNS2013 (Edinburgh, UK)
7/12	AONSA Prize Award Ceremony during ICNS2013 (Edinburgh, UK)
7/14-7/19	The 12th Asia-Pacific Physics Conference/APPC (Chiba, Japan)
11/17	The 11th AONSA EC Meeting (Dongguan, China)
12/2-12/3	AINSE-ANBUG Neutron Science Symposium (AANSS) (Lucas Height, Australia)
12/7-12/10	AsCA 2013 (Hong Kong, China)

Year 2014

Date(M/D)	Events
2/4-2/8	Pre-Conference School on Neutron Scattering at BARC (Mumbai, India)
2/10-2/12	Conference on Neutron Scattering (CNS 2014) (Pune, India)
2/21	The 12th AONSA EC Meeting (Daejeon, Korea)
8/5-8/12	The 23rd IUCr Congress and General Assembly (Montreal, Canada)
9/29-10/3	International Collaboration on Advanced Neutron Sources (ICANS XXI) (Mito, Japan)
10/X	The 13th AONSA EC Meeting (Serpong, Indonesia)
10/12	AONSA Special Session for IYCr2014 (Serpong, Indonesia)
10/12-10/17	The 6th AONSA Neutron School (Serpong, Indonesia)
10/12-10/16	The 8th International Workshop on Sample Environment at Neutron Scattering Facility (Oxfordshire, UK)

Year 2015

Date(M/D)	Events
7/18 or 19	The 14th AONSA EC Meeting (Manly, Australia)
9/19-9/23	The 2nd AOCNS (Manly, Australia)
TBD	The 15th AONSA EC Meeting (Tokai, Japan)
TBD	The 7th AONSA Neutron School (Tokai, Japan)
TBD	Gordon Research Conference on Neutron Scattering (Hong Kong, China)