



Invitation

National Synchrotron Radiation Research Center (NSRRC) and User Executive Committee (UEC) sincerely invite you to participate and present your recent research results at 23rd Users' Meeting & Workshops on September 5 - 8, 2017.

The meeting on September 5 will begin with the status reports and future plans regarding NSRRC's light source & beamlines, and neutron facility status. Following the sessions, several distinguished users from different fields are invited to present their cutting-edge research. In the afternoon, Users' Town Meeting will be hosted together by UEC Chair, Neutron UEC Chair, and NSRRC Director. Users can communicate directly with the Director and discuss issues related to the experiments, user service and NSRRC future development during this session. Next, Student poster/oral presentation sessions, classified into different groups based on research fields, will be held. The best poster of each group will be awarded with the "Glory of Taiwan" in the Award Ceremony at dinner banquet on September 6. Lastly, there will be five interest group meetings, and users are welcome to participate in.

Workshop I & II will be held on September 6 (Wed), while Workshop III and IV on September 7~8. The contents of four workshops are listed as follows:

Workshop I: Synchrotron for Industries

Advanced synchrotron radiation (SR) technology is a scientific probe, but also a powerful tool for industrial innovation. In this workshop, we invite the expertise related to semiconductor, pharmacy, green energy and polymer industry, to share their experiences, requests and suggestions of using SR techniques when they are facing future challenges. Through this meeting, we wish we can have more dialog and brain-storming, and help to elevate the global competition strength of domestic industries.

Workshop II: High Flux Small-Angle X-ray Scattering on Biological Complex Structures

Rapid progress in synchrotron flux has driven up surged applications of small-angle X-ray scattering, especially on structural biology. The development trend of SAXS data analysis makes SAXS a potential platform to integrate information with hybrid methods in biological structural analysis. The purpose of the workshop to share the recent development and research results in biological small-angle X-ray scattering instrumentation, protein solution measurements and data analysis, and ultra small-angle X-ray scattering for large structure, and biological structural kinetics in millisecond to microsecond.

Workshop III: High Resolution X-ray Spectroscopy of Quantum Materials

High-resolution Resonant inelastic X-ray scattering (RIXS) and angle-resolved Photoemission spectroscopy (ARPES) using synchrotron radiation have become very popular and efficient tools to study the electronic structure of strongly correlated quantum materials with emergent properties. The purpose of this workshop is to introduce challenging problems and hot topics in quantum materials which can be addressed by RIXS and ARPES. International and domestic experts have been invited to present their most recent results and future trends on the electronic structure of quantum materials. We welcome everyone interested in pursuing RIXS and ARPES activities at the Taiwan Photon Source.

Workshop IV : TPS & Complementary Methods for Emerging Materials

High Entropy Alloy is a made-in-Taiwan metallic system. Prof. Jien-Wei Yeh, a made-in-Taiwan metallurgist created “High Entropy Alloy” two decades ago. The National Tsing Hua University Team pioneers this unexplored territory. The potential applications are evidenced in many high-profile reports since 2014 [1-3]. Moreover, here comes the emerging technology for the metallurgy, which is the Additive Manufacturing. The laser heating and precise dimensional control enable the materials engineers to reach the transient states of the metals, which was not easily reached by the traditional methods.

It is emerging for the materials scientists to investigate the dynamics of the local structure at the nonequilibrium states subjected to fast heating and cooling. The newly developed TPS and NSRRC neutron programs offer complimentary advanced technology, which will open the windows for the materials research. We are keen to invite the international leading scientists to interact with the materials scientists and experts of the high-speed computation to build a new platform for Integrated Computational Materials Engineering (ICME) °

We cordially invite you to participate in 23rd Users' Meeting & Workshops and Poster Session. Please register online and submit your one-page abstract at <http://regis.nsrcc.org.tw/Default.aspx?lang=enUS> by July 14 (Fri.). For updates on 23rd Users' Meeting & Workshops, please visit our website at <http://regis.nsrcc.org.tw/Default.aspx?lang=enUS> .

Looking forward to seeing all of you at the meeting!

National Synchrotron Radiation Research Center
User Executive Committee
June 9, 2017

