

Marriage of computational and experimental techniques for solution small-angle scattering

Aim:

Small-angle scattering (SAS) technique plays a crucial role for structural analyzes for protein in solution. Recently, the combination of size exclusion chromatography (SEC) and SAS (SEC-SAS) enables the selective analysis of concerned component in multi-component system, which has been recognized as the difficult research target with SAS for long time. In addition, further structural analysis is on progress though the complementary use of computational work and SAS technique. It is considered that we must grasp the forefront of research in this field to submit the fruitful research outcome. We then hold this workshop “**Marriage of computational and experimental techniques for solution small-angle scattering**” to offer the opportunity for computational technique and experimental SAS experts.

Overview:

Date : 13th September 2018 14:00-18:00

Venue : Big meeting room at office building in Institute for Integrated Radiation and Nuclear Science, Kyoto

University <https://www.rri.kyoto-u.ac.jp/en/access>

Website: http://www.rri.kyoto-u.ac.jp/SANS_analysis/meeting2019/

Admission : free

Registration : Please send an e-mail to “rintaro@rri.kyoto-u.ac.jp”

Organizers : Rintaro Inoue and Masaaki Sugiyama

Corresponding organizer : Rintaro Inoue

Sponsor : Institute for Integrated Radiation and Nuclear Science, Kyoto University

Cosponsor : High Energy Accelerator Research Organization, J-PARC MLF User’s Society, Project of Workshop of neutron structural biology for next generation

Program

time	Presenter	Title
14:00-14:10	Rintaro Inoue	Opening remarks.
14:10-14:50	Thomas Grant (University at Buffalo)	Ab initio electron density determination directly from solution scattering data.
14:50-15:30	Tsutomu Matusi (SLAC)	Current State and Challenges of SEC-SAXS at SSRL.
15:30-15:50		Coffee break.
15:50-16:20	Atsushi Matsumoto (QST)	Building atomic model of overlapping dinucleosome from SAXS and SANS data.
16:20-16:50	Saeko Yanaka (ExCELLS, IMS)	Experimental and computational observations of the dynamics of the Fc region of immunoglobulin G.
16:50-17:20	Masahiro Shimizu (Kanazawa University)	Visualization of biomolecules by applying solution scattering data to molecular dynamics simulations.
17:20-17:50	Kento Yonezawa (PF, KEK)	Recent Approaches to Serial Data Analysis of BioSAXS at the Photon Factory.
17:50-18:00	Masaaki Sugiyama	Closing remarks.