SAT C: SAXS Software Course: Irena and Nika

Time: 2 Full-days
Date: Thursday, April 23 – Friday, April 24
Course location: Building 401, Room A5000
Organizers: Jan Illavsky (APS)

Description: Successful small-angle x-ray scattering (SAXS, SANS) experiment requires appropriate data reduction and analysis tools. Igor Pro based packages Nika (for SAXS data reduction) and Irena (for SAS = SAXS/SANS/USAXS/USANS data analysis) were developed during the last 15 years at the APS. They are already being used widely for material science SAS at the APS and at other facilities worldwide. These tools are commonly included in syllabus of "Beyond Rg Materials" - SAXS short course organized semi-annually by APS SAXS SIG. However, the main audience of this SAXS short course is new SAXS users, starting with their own SAXS program and therefore it focuses more heavily on experiments, theory etc.

The time devoted in this software course is insufficient for experienced experimenters interested in complex software applications. Therefore, the APS SAXS Special Interest Group (SIG) is organizing this specialized, hands-on, course specifically on the SAS software Nika and Irena. The course will be taught by the software author, Jan Ilavsky, APS staff member. Participants are expected to have a high level of SAS experience and bring their own computers (Windows or OSX). In addition, they are encouraged to bring their own SAS experimental results.

NOTE: This course is NOT for bioSAXS (protein structure and similar mono dispersed systems), the Irena software is mostly suitable for polydispersed and complex (hierarchical) systems. If you are not sure if your scientific application fits in the scope of this software, please ask.