

**SCHEDULE FOR SATURDAY, JUNE 11, 2011**

School participants arrive in Knoxville, TN, and check in at the Spring Hill & Homewood Suites Hotels at Turkey Creek, Knoxville. Transportation provided from airport and dinner hosted by Oak Ridge National Laboratory.  
 [Move to Comfort Inn, Oak Ridge, on Sunday afternoon for the duration of School at ORNL.]

**OAK RIDGE SCHOOL OPENING - SUNDAY, JUNE 12, 2011**

Spallation Neutron Source (SNS) Building 8600, Iran Thomas Auditorium, Room A103

Time/Date	Sunday, June 12	Time/Date	Sunday, June 12 cont'd
8:30 am 9:30 - 11:30 am	<b>Depart hotels for ORNL</b>  <b>Badging</b> <b>Safety Training (PFE)</b>	1:00 - 1:45 pm	<b>Lecture 1</b> Interactions of X-rays & Neutrons with Matter I S. Sinha University of California San Diego
11:30 - 12:00 pm	Lunch	1:45 - 2:00 pm	Break
12:00 - 1:00 pm	<b>Welcome</b> Thom Mason Laboratory Director Oak Ridge National Laboratory  <b>Opening Remarks</b> Bryan Chakoumakos Group Leader, Single-Crystal Diffraction Neutron Scattering Science Div. Oak Ridge National Laboratory	2:00 - 2:45 pm	<b>Lecture 1 (Continued)</b> Interactions of X-rays & Neutrons with Matter II
		2:45 - 3:00 pm	Break
		3:00 - 5:30 pm	Check in at Comfort Inn Hotel, Oak Ridge (Transportation provided from SNS)
		5:30 - 8:00 pm	<b>Dinner at Comfort Inn hosted by ORNL</b> <b>Free time for participants</b>

**Program Week 1**  
**Spallation Neutron Source (SNS) Building 8600, Iran Thomas Auditorium, Room A103**

Time/Date	Monday June 13	Tuesday June 14	Wednesday June 15	Thursday June 16	Friday June 17	Saturday June 18
8:30 - 9:30 am	<b>Lecture 2</b> Interactions of X-rays & Neutrons with Matter III S. Sinha University of California San Diego	<b>Lecture 4 (Continued)</b> Inelastic Neutron Scattering II B. Gaulin McMaster University	<b>Lecture 8</b> Reflectivity C. Majkrzak National Institute of Standards and Technology	<b>Lecture 11</b> Neutron Generation and Detection J. Carpenter Argonne National Laboratory	<b>Lecture 14</b> Powder Diffraction Applications A. Huq Oak Ridge National Laboratory	<b>Participants depart for Argonne National Laboratory</b>
9:30 - 9:45 am	Break	Break	Break & Group photo	Break	Break	
9:45 - 10:45 am	<b>Lecture 2 (Continued)</b> Interactions of X-rays & Neutrons with Matter IV	<b>Lecture 5</b> Neutron Polarization C. Majkrzak National Institute of Standards and Technology	<b>Lecture 9</b> Small Angle Scattering V. Urban Oak Ridge National Laboratory	<b>Lecture 12</b> Applications of Small Molecule Crystallography A. Beatty University of Missouri , St. Louis	<b>Lecture 15</b> Diffuse Scattering G. Ice Oak Ridge National Laboratory	
10:45 - 11:00 am	Break	Break	Break	Break	Break	
11:00 - 12:00 pm	<b>Lecture 3</b> Single Crystal Diffraction A. Schultz Argonne National Laboratory	<b>Lecture 6</b> Magnetic Scattering B. Gaulin McMaster University	<b>Lecture 10</b> Materials Engineering Tom Holden Northern Stress Technologies	<b>Lecture 13</b> Neutron Sources J. Rhyne Los Alamos National Laboratory	<b>Lecture 16</b> Micro-Diffraction G. Ice Oak Ridge National Laboratory	
12:00 - 1:00 pm	Lunch	Lunch	Lunch	Lunch	Lunch	
1:00 - 3:00 pm	<b>Tours</b> SNS & CNMS	<b>Tours</b> HFIR & Graphite Reactor	<b>HFIR/SNS Experiments (15 Instruments)</b>	<b>HFIR/SNS Experiments (15 Instruments)</b>	<b>HFIR/SNS Experiments (15 Instruments)</b>	
3:30 - 4:30 pm	<b>Lecture 4</b> Inelastic Neutron Scattering I B. Gaulin McMaster University	<b>Lecture 7</b> Quasi-elastic Neutron Scattering K. Herwig Oak Ridge National Laboratory				
4:30 - 6:00 pm	<b>Dinner and Discussion</b>	<b>Dinner and Discussion</b>				
6:30 - 7:30 pm			<b>Dinner and Discussion</b>	<b>Dinner and Discussion</b>	<b>Close-out Dinner in the SNS Cafeteria</b>	

National School on Neutron and X-ray Scattering  
Program Week 2: June 20-25, 2011

Argonne National Laboratory  
Argonne, Illinois

Program Week 2  
Advanced Photon Source (APS) Building 401 Auditorium

Time/Date	Monday June 20	Tuesday June 21	Wednesday June 22	Thursday June 23	Friday June 24	Saturday June 25
9:00 - 10:00 am	<b>Lecture 17</b> X-ray Generation/ Instrumentation D. M. Mills Argonne National Laboratory	<b>Lecture 19</b> X-ray Absorption Fine Structure (XAFS) B. Bunker Notre Dame University	<b>Lecture 22</b> X-ray Imaging C. J. Jacobsen Northwestern University	<b>Lecture 25</b> Surface Scattering P. Miceli Univ. of Missouri	<b>Lecture 28</b> High-pressure Techniques Dr. M. Guthrie, Carnegie Institution of Washington	<b>9:30 am - 12:30 pm</b> <b>Student</b> <b>Presentations</b>  <b>12:30 pm</b> <b>Student Closing</b> <b>Picnic</b>
10:00 - 10:15 am	Break	Break	Break	Break	Break	
10:15 - 11:15 am	<b>Lecture 17 (Continued)</b> X-ray Generation/ Instrumentation	<b>Lecture 19 (Continued)</b> X-ray Absorption Fine Structure (XAFS)	<b>Lecture 22 (Continued)</b> X-ray Imaging	<b>Lecture 25 (Continued)</b> Surface Scattering	<b>Lecture 29</b> Real/Reciprocal Space Complimentarity Amanda Petford-Long Argonne National Laboratory	
11:15 - 11:30 am	Break	Break	Break	Break	Break	
11:30 - 12:30 pm	<b>Lecture 18</b> X-ray Detection P. Denes Lawrence Berkley NL	<b>Lecture 20</b> Magnetic Spectroscopy E. Arenholz Lawrence Berkley NL	<b>Lecture 23</b> X-ray Photon Correlation Spectroscopy Larry Lurio University of Northern Illinois	<b>Lecture 26</b> Nuclear Resonant Scattering E. Alp Argonne National Laboratory	<b>Lecture 30</b> Proposal Writing J. Lang Argonne National Laboratory	
12:30 - 1:30 pm	Lunch	Lunch	Lunch	Lunch	Lunch	<b>1:45 - 5:30 pm</b>  <b>Experiment Time D</b> <b>See "Experiments</b> <b>Schedule"</b>  <b>1:30 pm</b> <b>School</b> <b>Participants</b> <b>Depart for Home</b>
1:30 - 2:30 pm	<b>Lecture 18 (Continued)</b> X-ray Detection	<b>Lecture 21</b> Time Resolved Scattering D. Tiede Argonne National Lab	<b>Lecture 24</b> Pair Distribution Function Chris Benmore Argonne National Lab	<b>Lecture 27</b> Inelastic X-ray Scattering P. Abbamonte University of Illinois - UC		
2:30 - 2:45 pm	Break	Break	Break	Break		
2:45 - 6:45 pm	<b>Experiment Time A</b> See "Experiments Schedule"	<b>User Badging</b>  <b>Optional Tour of APS or CNM</b>  <b>Free Time</b>	<b>Experiment Time B</b> See "Experiments Schedule"	<b>Experiment Time C</b> See "Experiments Schedule"	<b>Reception/Banquet</b> <b>Argonne Guest House</b> <b>Building 460</b>	
7:00 pm	<b>Dinner and Discussion</b>		<b>Dinner and Discussion</b>	<b>Dinner and Discussion</b>	<b>6:30 pm - Reception</b> <b>7:00 pm - Dinner</b>	