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SCHEDULE FOR SATURDAY, August 11, 2012

3:00 - 6:00 PM School participants arrive at Argonne and register at the Argonne Guest House, Building 460.

6:00 - 8:00 PM - Informal get-together Argonne Guest House. Food and beverages will be provided. All School participants and program presenters are invited to attend.

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ARGONNE SCHOOL OPENING - SUNDAY, AUGUST 12, 2012

APS Building 401, Room A1100

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| Time/Date | Sunday, August 12 | Time/Date | Sunday, August 12 | Time/Date | Sunday, August 12 |
| 8:00 AM | Breakfast BuffetArgonne Guest HouseRestaurant | 9:15 - 10:15 | LectureInteraction of X-rays andNeutrons with MatterS. K. SinhaUniversity of California, San Diego | 2:45 - 3:30 | LectureX-ray DetectionP. P. DenesLawrence Berkley NationalLaboratory |
| 9:00 AM | Opening RemarksDr. Brian StephensonAssociate Laboratory DirectorAdvanced Photon SourceArgonne National LaboratoryDr. Suzanne G.E. te VelthuisPhysicistMaterials Science DivisionArgonne National LaboratoryDr. Jonathan C. LangPhysicistX-ray Science Division Advanced Photon Source Argonne National Laboratory |
| 10:15 – 10:30 | Break | 3:30 - 3:45 | Break |
| 10:15 - 11:15 | Lecture ContinuedInteraction of X-rays andNeutrons with MatterS. K. SinhaUniversity of CaliforniaSan Diego | 3:45 - 4:30 | Lecture ContinuedX-ray DetectionP. P. DenesLawrence Berkeley NationalLaboratory |
| 11:15 - 11:30 | Break | 4:30 - 4:45 | Break |
| 11:30 - 12:30 | LectureX-ray Generation/InstrumentationD. M. MillsArgonne National Laboratory | 4:45 - 6:00 | Advanced Photon Source(APS) Tour |
| 12:30 - 1:30 | Lunch | 6:00 - 7:00 | Dinner |
| 1:30 - 2:30 | Lecture ContinuedX-ray Generation/InstrumentationD. M. MillsArgonne National Laboratory |  |

Program Week 1 - August 13-18, 2012

APS Building 401 Room A1100

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| --- | --- | --- | --- | --- | --- | --- |
| Time/Date | MondayAugust 13 | TuesdayAugust 14 | WednesdayAugust 15 | ThursdayAugust 16 | FridayAugust 17 | SaturdayAugust 18 |
| 8:30 - 9:30 | Lecture ContinuedInteraction of X-rays andNeutrons with MatterS. K. SinhaUniversity of California, San Diego | LectureSurface ScatteringP. Miceli University of Missouri | LectureX-ray Abs. Spectroscopy G. B. Bunker Illinois Institute of Technology | LectureX-ray Imaging I. McNulty Argonne NationalLaboratory | LectureHigh Pressure TechniquesM. GuthrieCarnegie Institute - Washington | Bus Travel toOak RidgeBus departs Argonne Guest House - 9:00 AMDinner atOak Ridge |
| 9:30 - 9:45 | Break | Break | Break | Break | Break |
| 9:45 - 10:45 | Lecture ContinuedInteraction of X-rays andNeutrons with MatterS. K. SinhaUniversity of California, San Diego | Lecture ContinuedSurface ScatteringP. Miceli University of MIssouri | Lecture ContinuedX-ray AbsorptionSpectroscopy G. B. Bunker Illinois Institute ofTechnology | Lecture ContinuedX-ray Imaging C. I. McNulty Argonne NationalLaboratory | LectureTime Resolved ScatteringP. EvansUniv. of Wisconsin |
| 10:45 - 11:00 | Break | Break | Break | Break | Break |
| 11:00 - 12:00 | LectureSingle Crystal DiffractionA. SchultzArgonne National Lab | LecturePowder DiffractionB. TobyArgonne National Lab | LectureMagnetic SpectroscopyE. ArenholzLawrence Berkley National Lab | LectureXPCSL. LurioNorthern Illinois University | LectureX-ray Emission SpectroscopyG. SiedlerUniv. of Washington |
| 12:00 - 1:15 | Lunch | Group Photo/Lunch | Lunch | Lunch | Lunch |
| 1:30 - 6:00 | LectureSmall Angle ScatteringD. SchafferUniv. of Cincinnati1:30 -2:30 pm | Free Afternoon inChicago (Optional)Buses depart Argonne Guest House for down- town Chicago - 1:30 PMBuses depart downtown Chicago for Argonne Guest House - 8:00 PM | X-ray Experiment 21:30 – 6:00See Experiments Schedule | X-ray Experiment 31:30 – 6:00See Experiments Schedule | X-ray Experiment 41:30 – 6:00See Experiments Schedule |
| Break 2:30 - 2:45 |
| 6:00 - 7:00 | X-ray Experiment 12:45 – 6:30See Experiments Schedule | Dinner | Dinner | DinnerWeek 1 wrap-up Picnic |

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SCHEDULE FOR SATURDAY, August 18, 2012

School participants arrive in Oak Ridge, TN and check in at the Comfort Inn. Transportation provided from airport and dinner hosted by Oak Ridge National Laboratory.

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OAK RIDGE SCHOOL OPENING - SUNDAY, August 19, 2012

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

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| Time/Date | Sunday, August 19 | Time/Date | Sunday, August 19 |
| 9:30 - 11:30 | -Badging-Safety Training (PFE) | 1:00 - 1:45 | LectureNeutron Generation and DetectionJ. M. Carpenter Argonne National Laboratory  |
| 11:30 - 12:00 | Lunch | 1:45 - 2:00 | Break |
| 12:00 - 1:00 | WelcomesDr. Kelly BeierschmittAssociate Laboratory DirectorNeutron DirectorateOak Ridge National LaboratoryDr. Thom MasonDirectorOak Ridge National LaboratoryOpening RemarksDr. Bryan C. ChakoumakosGroup LeaderStructure of MatterQuantum Condensed Matter Div.Oak Ridge National Laboratory | 2:00 - 2:45 | Lecture Neutron optics and InstrumentationL. RoberstonOak Ridge National Laboratory |
| 2:45 - 3:00 | Break |
| 3:00 - 6:30 | ToursSNS, HFIR, and Graphite Reactor |
| 6:30 - 8:00 | Dinner and Discussion |

Program Week 2 - August 20-25, 2012

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

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| --- | --- | --- | --- | --- | --- | --- |
| Time/Date | MondayAugust 20 | TuesdayAugust 21 | WednesdayAugust 22 | ThursdayAugust 23 | FridayAugust 24 | SaturdayAugust 25 |
| 8:30 - 9:30 | LectureQuasi-elastic NeutronScatteringK. W. HerwigOak Ridge NationalLaboratory | LectureMagnetic ScatteringB. D. Gaulin McMaster University | LecturePDF Analysis T. ProffenOak Ridge National Laboratory | LectureMaterials EngineeringD. BrownLos Alamos NationalLaboratory | LectureWriting Proposals for Neutron & X-ray Beamtime J. D. BudaiOak Ridge NationalLaboratory | School participants depart for home |
| 9:30 - 9:45 | Break | Break | Break | Break | Break |
| 9:45 - 10:45 | LectureInelastic NeutronScatteringB. D. GaulinMcMaster University | LectureReflectivityC. F. Majkrzak National Institute of Standards and Technology | LectureDiffuse ScatteringG. E. IceOak Ridge NationalLaboratory  | LectureApplications of Small Angle ScatteringV. S. UrbanOak Ridge NationalLaboratory | LecturePowder DiffractionApplicationsA. HuqOak Ridge NationalLaboratory |
| 10:45 - 11:00 | Break | Break | Break | Break | Break |
| 11:00 - 12:00 | Lecture ContinuedInelastic NeutronScatteringB. D. GaulinMcMaster University | LectureNeutron Polarization C. F. Majkrzak National Institute of Standards and Technology | LectureMicro-DiffractionG. E. IceOak Ridge NationalLaboratory  | LectureImaging with NeutronsH. BilheuxOak Ridge NationalLaboratory | Presentation preparation  |
| 12:00 - 12:45 | Lunch J. J. RhyneLos Alamos NationalLaboratory | Lunch | Lunch | Lunch | Lunch |
| 12:45 - 6:30 | HFIR/SNS Experiment 1(16 Instruments) | HFIR/SNS Experiment 2(16 Instruments) | HFIR/SNS Experiment 3(16 Instruments) | HFIR/SNS Experiment 4(16 Instruments) | Student Presentations |
| Break |
| Student Presentations |
| 6:30 - 8:00 | Dinner and Discussion   | Dinner and Discussion | Dinner and Discussion | Dinner and Discussion | Dinner in the SNS Cafeteria &Social on the Patio |