



X-Ray and Neutron Science

3rd ESRF/ILL International Student Summer Programme

28th August – 23rd September 2016



Sunday, 28th August – Arrival

18:00 – 21:00 Welcome Buffet & Get Together with Tutors in the ESRF/ILL Cafeteria

Monday, 29th August – Oral Sessions - ILL Chadwick Amphitheatre

08:00 – 09:00	ESRF students : administrative formalities	Leila van Yzendoorn ESRF Central building office 424 at the ILL medical service
	ILL students: medical exams	
09:30 – 10:30	Welcome address and presentation of Neutron Science by William G. Stirling (ILL Director General)	
10:30 – 11:00	<i>Coffee break</i>	
11:00 – 12:00	Welcome address and presentation of Synchrotron Radiation by Francesco Sette (ESRF Director General)	
12:00 – 14:00	<i>Lunch break (common restaurant on site)</i>	
14:00 – 15:30	ESRF students: General Safety Training	ESRF central building, Room CB-018
14:00 – 15:00	ILL students: Administrative formalities	ILL 4, office 51/Anita Schober
15:30	ILL students: X-ray exams downtown Grenoble	
afternoon	Self study	

Tuesday, 30th August – Oral Sessions - ILL Chadwick Amphitheatre

08:30 – 09:30	<i>Principles of Synchrotron Radiation</i>	Boaz Nash (ESRF)
09:30 – 10:30	<i>X-Ray and their interaction with matter (Part 1)</i>	Luigi Paolasini (ESRF)
10:30 – 11:00	<i>Coffee Break</i>	
11:00 – 12:00	ESRF students : PSS safety training (radiation safety)	ESRF Beamline BM18
12:00 – 14:00	<i>Lunch break</i>	
14:00 – 15:00	<i>X-rays and their interaction with matter (Part 2)</i>	Luigi Paolasini (ESRF)
15:00 – 15:30	<i>Coffee break</i>	
15:30 – 16:30	<i>X-ray Instrumentation</i>	Raymond Barrett (ESRF)
afternoon	Self study	

Wednesday, 31th August – Oral Sessions - ILL Chadwick Amphitheatre

09:00 – 10:00	Neutron Instrumentation	Eddy Lelièvre-Berna (ILL)
10:00 – 10:30	<i>Coffee break</i>	
10:30 – 12:00	Visit of ILL reactor	
12:00 – 14:00	<i>Lunch break</i>	
14:00 – 15:00	Interaction Neutrons + Matter (part 1)	Christian Vettier (ESRF)
15:00 – 15:30	<i>Coffee break</i>	
15:30 – 16:30	Interaction Neutrons + Matter (Part 2)	Christian Vettier (ESRF)
<i>Remaining afternoon</i>	Self study	

Thursday, 1 st September – Laboratory work (project)	14:00 – 16:30: Safety training for the ILL Students (Chadwick Amphitheatre)
---	--

Friday, 2 nd September – Laboratory work (project)

Monday, 5 th September – Laboratory work (project)

Tuesday, 6th September – Oral Sessions - ILL Chadwick Amphitheatre

09:00 – 10:00	X-ray imaging	Alexander Rack (ESRF)
10:00 – 10:30	<i>Coffee break</i>	
10:30 – 11:30	Magnetism and X-Ray dichroism	Andrei Rogalev (ESRF)
11:30	<i>Lunch break</i>	
<i>Afternoon</i>	Laboratory work (project)	

Wednesday, 7 th September – Laboratory work (project)
--

Thursday, 8th September – Oral morning session– ILL Chadwick Amphitheatre

09:00 – 10:00	Soft Matter studies with X-rays	Theyencheri Nayaranan (ESRF)
10:00 – 10:30	<i>Coffee break</i>	
10:30 – 11:30	Neutron Spectroscopy	Andrew Wildes (ILL)
11:30 – 12:30	Inelastic neutron scattering	Mechthild Enderle (ILL)

12:30	<i>Lunch break</i>	
Afternoon	Laboratory work (project)	

Friday, 9th September – Laboratory work (project)

Sunday, 11th September – Hiking in the Vercors with Patrick Bruno (depending on weather conditions & your registrations)

Monday, 12th September – Laboratory work (project)

Tuesday, 13th September - Oral morning session - ILL Chadwick Amphitheatre		
09:00 – 10:00	<i>X-Ray Diffraction</i>	Tobias Schulli (ESRF)
10:00 – 10:30	<i>Coffee break</i>	
10:30 – 11:30	<i>X-ray studies under extreme conditions</i>	Mohamed Mezouar (ESRF)
11:30	<i>Lunch break</i>	
Afternoon	Laboratory work (project)	

Wednesday, 14th September – Laboratory work

Wednesday, 14th September, 18:30 – 21:30 – BBQ at the “Chalet” on Site

Thursday, 15th September - Oral morning session - ILL Chadwick Amphitheatre		
09:00 – 10:00	<i>Fundamentals of X-Ray Absorption Fine structure</i>	Sakura Pascarelli (ESRF)
10:00 – 10:30	<i>Coffee break</i>	
10:30 – 11:30	<i>Synchrotron Radiation and Structural Biology</i>	Gordon Leonard (ESRF)
11:30	<i>Lunch break</i>	
Afternoon	Laboratory work (project)	

Friday, 16th September – Laboratory work (project)

Monday, 19th September – Laboratory work (project)

Tuesday, 20th September - Oral morning session – Seminar Room ILL4

09:00 – 10:00	Soft matter studies with neutrons	Giovanna Fragneto (ILL)
10:00 – 10:30	<i>Coffee break</i>	
10:30 – 11:30	Nuclear and particle physics	Oliver Zimmer (ILL)
11:30	<i>Lunch break</i>	
<i>Afternoon</i>	Laboratory work (project)	

Wednesday, 21th September – Laboratory work (project)

Thursday, 22th September – Students' Workshop – ILL 4 Seminar Room

<i>Morning</i>	Laboratory work (project)	
<i>Afternoon</i>	Students' Workshop in Chadwick Amphitheatre	(detailed program will be communicated later)

*Thursday, 22th September, 19:00 – Farewell Dinner in town
(details will be communicated later)*

Friday, 23th September – Students' Workshop – Chadwick Amphitheatre

<i>Morning</i>	Students' Workshop in Chadwick Amphitheatre (continued)	
<i>Afternoon</i>	departure formalities	

Saturday, 24st September: Departure