

Lecture programme: Tuesday 31 August – Friday 10 September 2021

1. Programme structure

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
9:00-10:15	Travel	I1 Sébilleau/ Minar/Ebert	B4 Janiš (video)	E3 Ujfalussy	S2 Benea	S6 Sivr	Excursion
10:15-12:30		B1 Sébilleau	E1 Staunton (video)	E4 Lounis (video)	S3 Richter (video)	S7 Pedio (video)	
12:30-14:00		Lunch break	Lunch break	Lunch break	Lunch break	Lunch break	
14:00-16:00		Free	Free	Free	Free	Free	
16:00-17:30	Arrival	B2 Yafaev	S1 Minár	E5 Szunyogh (video)	S4 Rehr	3 one-hour lectures on codes: FEFF, MXAN,FPMS	
17:30-19:00		B3 Ebert	E2 Hatada	E6 Benfatto (video)	S5 Braun (video)		
19:30-20:30		Dinner	Dinner	Dinner	Dinner	Dinner	
20:45 →		Flash talks on posters	Poster session	Poster session	Students' questions	Poster session	Free

	Monday	Tuesday	Wednesday	Thursday	Friday
9:00-10:15	Lecture on ASE code A. H. Larsen (video)	Lecture on SPR-KKR code Ebert/Minar/ Benea	Lecture on MsSpec Code Tricot/ Sébilleau	Lecture on GNXAS code Di Cicco/ lesari	Student's talks
10:15-12:30	Hands-on on ASE code	Hands-on on SPR-KKR code	Hands-on on MsSpec code	Hands-on on GNXAS code	Student's talks
12:30-14:00	Lunch break	Lunch break	Lunch break	Lunch break	Lunch break
14:00-16:00	Free	Free	Free	Hands-on on GNXAS code	Departure
16:00-17:30	S8 Krüger	Hands-on on SPR-KKR code	Hands-on on MsSpec code	Hands-on on GNXAS code	
17:30-19:00	Students' questions session	Hands-on on SPR-KKR code	Hands-on on MsSpec code	Free	
19:30-20:30	Dinner	Dinner	Dinner	Dinner	
20:45 →	Poster session	Poster session	Students' questions	Best poster award	

2. List of the lectures:

Basics

- **I1** *Introduction, school overview and technicalities*
- **B1** Didier Sébilleau (University of Rennes-1, FR)
“From Green’s Functions to Multiple Scattering”
- **B2** Dimitri Yafaev (University of Rennes-1, FR)
“Mathematical Scattering Theory”
- **B3** Hubert Ebert (LMU Munich, DE)
“From Multiple Scattering to Electronic Structure”
- **B4** Václav Janiš (Academy of Sciences, Prague, CZ)
“Multiple Scattering and Manybody Physics”

Electronic structure

- **E1** Julie Staunton (University of Warwick, UK)
“Relativistic Multiple Scattering Theory”
- **E2** Keisuke Hatada (Toyama University, JP)
“Full Potential Multiple Scattering”
- **E3** Balazs Ujfalussy (Wigner Centre for Physics, HU)
“Superconductivity with KKR”
- **E4** Laszlo Szunyogh (University of Budapest, HU)
“Screened KKR Theory”
- **E5** Samir Lounis (Jülich, DE)
“Non-Equilibrium Green’s Functions”
- **E6** Maurizio Benfatto (LNF-INFN Frascati, IT)
“Multiple Scattering and Molecular Dynamics – Time-Resolution”

Spectroscopy

- **S1** Ján Minár (University of West Bohemia, CZ)
“Multiple Scattering and Spectroscopies”
- **S2** Diana Benea (Babeş-Bolyai University, RO),
“Compton scattering and positron annihilation”
- **S3** Christiane Richter (University of Cergy-Pontoise, FR)
“Spin and time-resolved photoemission”
- **S4** John Rehr (University of Washington, US)
“Multiple scattering modelling of XAS, EELS, REXS and RIXS”
- **S5** Jürgen Braun (LMU Munich, DE)
“Relativistic Theory of ARPES”
- **S6** Ondřej Šipr (Academy of Sciences, Prague, CZ)
“Theory of XMCD”
- **S6** Maddalena Pedio (IOM-CNR, Trieste, IT)
“Multiple Scattering in XAS Experiments”
- **S8** Peter Krüger (Chiba University, JP)
“Multichannel Multiple Scattering and Bethe-Salpeter Equations”

Codes and HOC tutorials

- A. J. Larsen (DTU, Copenhagen, DK):
"The ASE package"
- S. Mankovskyy, S. Polesya (LMU, Munich ,DE):
"The SPR-KKR package"
- Andrea di Cicco, (Camerino University, IT) , Fabio Iesari (JP):
"The GNXAS code for Modelling Experiments"
- Sylvain Tricot, Didier Sébilleau (University of Rennes-1, FR) :
"The MsSpec package for modelling Experiments"