



Società Italiana di Spettroscopia Neutronica

SISN Advanced School 2018

Neutron scattering data handling, numerical methods, statistical and computational tools:
the complex *background* of neutron experiments

18-22 June 2018 – San Giovanni in Valle Aurina (Bolzano, Italy)

TIMETABLE

Mon 18		Tue 19		Wed 20		Thu 21		Fri 22	
8.30 9.00	Opening <i>Participants briefly describe their activity and interests</i>	9.00 10.30	Simulating neutron instruments and experiments. McStas environment	9.00 10.30	Interpreting neutron and simulation spectra: general description for simple systems	9.00 10.30	Quasi-elastic spectra and multi-Lorentzian fits. How to establish how many Lorentzians?	9.00 10.30	Problems and solutions in the analysis of SANS data Programs for SANS data handling
9.00 10.30	What we measure and what we look for. Typical problems and solutions in NS data analysis	10.30 10.45	COFFEE BREAK	10.30 10.45	COFFEE BREAK	10.30 10.45	COFFEE BREAK	10.30 10.45	COFFEE BREAK
		10.45 12.15	Multiple scattering Computational methods	10.45 12.15	Statistical methods. Bayesian approach to the analysis of NS data	10.45 12.15	Models and simulations for biological systems	10.45 12.15	PRACTICALS <i>Analysis of SANS data</i>
10.30 10.45	COFFEE BREAK								
10.45 12.15	Simulations for neutrons and neutrons for simulations. Simulating simple and complex molecular systems	14.15 15.45	Analysis of crystal structures I FullProf environment	14.15 15.45	Analysis of crystal structures II GSas environment	14.15 15.45	Problems and solutions in the analysis of liquid structural data	14.15 15.30	END OF PRACTICALS BEGUN BEFORE LUNCH
14.15 15.45	Error analysis and resolution effects in neutron and simulation data	15.45 18.00	PRACTICALS <i>Analysis of diffraction patterns by FullProf</i> <i>Experiment simulation by McStas</i>	15.45 18.00	PRACTICALS <i>Analysis of diffraction patterns by GSas</i>	15.45 18.00	PRACTICALS <i>Analysis of biological samples</i> <i>Analysis of quasi-elastic spectra in mixtures</i> <i>Analysis of liquid structural data</i>	19.30 School dinner 20.45 <i>Dessert and concluding session in the teaching room</i>	