CERIC
Central European Research Infrastructure Consortium

HERCULES Specialized Course 2021

The multi-technique approach of CERIC-ERIC as a tool for Nanoscience

CEST	Monday May 31st	Tuesday June 1st	Wednesday June 2nd	Thursday June 3rd	Friday June 4th	Monday June 7th	Tuesday June 8th	Wednesday June 9th
08:30	**Welcome** Jana Kolar (CERIC-ERIC) Marc de Boissieu (HERCULES School) Alessandro Lombardo (CEI)							
08:45								
09:00	**CERIC** Dariusz Brzosko	**Introduction to X-ray Spectroscopy & Microscopy** Andrea Locatelli	**4 parallel sessions** **SAXS** H.Amenitsch, B.Sartor LS/MS **PGAA** Laszlo Szentmiklosi MS **ARPES** Natalia Olszowska Jacek Kołodziej Marcin Rosmus **Solid State NMR** Gregor Mali MS	**Liquid state NMR** Janez Plavec	**PIXE spectroscopy basics and applications** Iva Božičević Mihalić	**Introduction to Near-Ambient Pressure XPS** Mykhailo Vorokhta	**X-ray diffraction - Macromolecular Crystallography** Annie Heroux	**Soft X-rays Imaging and XRF** Alessandra Gianoncelli
09:15								
09:30	**Introduction to X/N-matter interaction** Maya Kiskinova							
09:45		**Introduction to X-ray Imaging** Giuliana Tromba		**Solid State NMR** Gregor Mali			**Powder Diffraction** Jasper Plaisier	**FTIR Microscopy with Synchrotron Radiation** Lisa Vaccari
10:00								
10:15								
10:30	Coffee Break	Coffee Break		Coffee Break	Coffee Break	Coffee Break	Coffee Break	Coffee Break
10:45								
11:00	**Introduction to NMR (Solid State NMR)** Janez Plavec	**Introduction to SAXS/SANS/LS** **H.Amenitsch** TUG		**Introduction to Ion Beams Analysis Techniques** Milko Jakšić	**Poster Session**	**Analytical Electron Microscopy for Materials Science: Introductory Notions** Corneliu Ghica	**Introduction to Electron Paramagnetic Resonance (EPR) Spectroscopy** Mariana Stefan	**Open Science** Emma Lazzeri
11:15								
11:30								**FAIR Data** Andrew Goetz
11:45	**Introduction to Neutron Sources** Márton Markó			**Introduction to Neutron Diffraction (PSD)** Alex Szakál			**Applications of EPR in Materials Science** Daniela Ghica	
12:00								**EOSC** Andrea Lorenzon
12:15								
12:30	Lunch	Lunch	Lunch	Lunch	Lunch	Lunch	Lunch	**Conclusions** Heinz Amenitsch
12:45								
13:00								
13:15								
13:30								
13:45								
14:00	**Introduction to Neutron Scattering** Márton Markói	**2 parallel sessions with smaller groups** **DXRL + Intro** B.Marmiroli MS **SAXS/LS** B.Sartori, H.Amenitsch, D.Naumenko **DXRL + Intro** B.Marmiroli MS **SAXS/LS** B.Sartori, H.Amenitsch, D.Naumenko		**Multiple parallel sessions** **Liquid State NMR** Primož Šket LS	**RBS and ERDA Spectroscopies, basics and applications** Zdravko Siketić	**3 parallel sessions** **SANS** László Almásy MS **SEM/FIB** Jaroslava Novakova **HRTEM** Corneliu Ghica MS	**3 parallel sessions** **PSD** Margit Fábián MS **NAPXPS** Bretislav Smid MS **EPR** Mariana Stefan Daniela Ghica MS	
14:15								
14:30								
14:45	**Introduction to Neutron Imaging and PGAA** László Szentmiklósi							
15:00								
15:15								
15:30	Coffee Break				Coffee Break			
15:45								
16:00	**Intro to Synchrotron sources Spectroscopy I** Ada Wawrzyniak				**Ion microprobe techniques and applications** Georgios Provatas			
16:15								
16:30								
16:45								
17:00								
17:15								
17:30								

*** Practical sessions will be held in parallel**

Practical
Theory

*LS: Life Sciences
*MS: Materials Science

CERIC facilties involed:

Graz University of Technology
Ruder Boskovic Institute
Charles Univerity Prague
Budapest Neutron Centre
Elettra Sincrotrone Trieste
Solaris Synchrotron
National Institute of Material Physics
National Institute of Chemistry