

**XV School on Synchrotron Radiation:  
Fundamentals, Methods and Applications**  
Muggia, Italy / 16-27 September 2019



**Monday September the 16<sup>th</sup>**

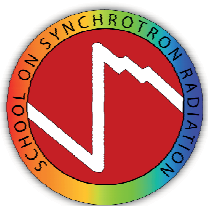
9.00 – 9.30	9.30 – 11.00	11.00 – 11.30	11.30 – 13.00	13.00 – 14.30	14.30 – 16.00	16.00 – 16.30	16.30 – 18.00
<i>Opening Session</i>	<b>S. Mobilio:</b> <i>Introduction to synchrotron radiation</i>	<b>Coffee Break</b>	<b>G. Margaritondo</b> <i>Characteristics and properties of synchrotron radiation</i>	<b>Lunch time</b>	<b>G. Margaritondo:</b> <i>Overview of methods taking advantage from use of synchrotrons</i>	<b>Coffee Break</b>	<b>M. Altissimo:</b> <i>Instrumentation at synchrotron radiation beamlines</i>

**Tuesday September the 17<sup>th</sup>**

9.00 – 10.30	10.30 – 11.00	11.00 – 12.30	12.30 – 14.00	14.00 – 15.30	15.30 – 16.30	16.30 -17.00	17.00 – 18.30
<b>F. Boscherini:</b> <i>Introduction to the interaction between matter and radiation</i>	<b>Coffee Break</b>	<b>A. Di Cicco:</b> <i>X-ray absorption and fluorescence spectroscopy: the EXAFS technique</i>	<b>Lunch time</b>	<b>C. Meneghini:</b> <i>XANES spectroscopy</i>	<b>G. Aquilanti:</b> <i>XAFS and XRF applications in condensed and soft matted</i>	<b>Coffee break</b>	<b>M. Chergui:</b> <i>Time resolved x-ray spectroscopies</i>

**Wednesday September the 18<sup>th</sup>**

9.00 – 10.30	10.30–11.00	11.00 – 12.30	12.30 – 14.30	14.30 – 16.00	16.00 – 16.30	16.30 – 18.30
<b>P. Scardi:</b> <i>Basics of X-ray Diffraction: from lab sources to Synchrotrons</i>	<b>Coffee Break</b>	<b>J.R. Plaisier:</b> <i>Powder Diffraction &amp; XAS</i>	<b>Lunch time</b>	<b>G. Zanotti:</b> <i>Protein Crystallography with X-rays and Cryo-EM</i>	<b>Coffee Break</b>	<b>J. Hajdu:</b> <i>Time resolved crystallography and CDI</i>



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**Thursday September the 19<sup>th</sup>**

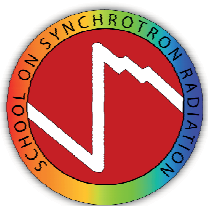
9.00 – 10.30	10.30 – 11.00	11.00 – 12.30	12.30 – 14.00	14.00 – 15.30	15.30 – 16.45	16.45 – 17.15	17:15 – 18:30
<b>H. Amenitch:</b> <i>SAXS and WAXS</i>	<b>Coffee Break</b>	<b>G. Grübel:</b> <i>X- ray Photon Correlation Spectroscopy</i>	<b>Lunch time</b>	<b>J. Y. Buffiere:</b> <i>X-ray imaging</i>	<b>G. Tromba:</b> <i>Medical Imaging with synchrotron radiation</i>	<b>Coffee break</b>	<b>L. Vaccari:</b> <i>IR synchrotron radiation bio- spectroscopy: from Macro to Nano scale on the molecules of life</i>

**Friday September the 20<sup>th</sup>**

9.00 – 10.30	10.30 – 11.00	11.00 – 12.30	12.30 – 14.00	14.00 – 15.30	15.30 – 16.30	16.30 – 17:00	17:00 – 18:30
<b>C. Mariani:</b> <i>Introduction to photoelectron spectroscopy in atoms, molecules and solids</i>	<b>Coffee Break</b>	<b>A. Baraldi:</b> <i>High resolution core level photoelectron spectroscopy</i>	<b>Lunch time</b>	<b>I. Vobornik:</b> <i>Angular and Spin resolved photoemission</i>	<b>P. Torelli:</b> <i>APPES and HAPES</i>	<b>Coffee break</b>	<b>G. Monaco:</b> <i>High resolution inelastic x-ray scattering</i>

**Saturday September the 21<sup>st</sup>**

9.00 – 12.30
<b>C. Meneghini and M. Merlini:</b> <i>Data analysis session</i>



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**Monday September the 23<sup>th</sup>**

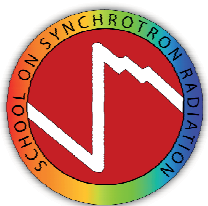
8.30 – 9.30	9.30 – 11.00	11.00 – 11.30	11.30 – 13.00	13.00 – 14.30	14.30 – 16.00	16.00 – 16.30	16.30 – 18.00
<b>A. Vichi:</b> <i>Synchrotron radiation in cultural heritage</i>	<b>A. Locatelli:</b> <i>X-ray Photo-Emission Electron Microscopy: Methods and Applications in Surface Science</i>	<b>Coffee break</b>	<b>Tevfik Onur Mentés:</b> <i>Dichroism and Magnetic Dynamics</i>	<b>Lunch time</b>	<b>M. Moretti:</b> <i>Resonant X-ray Scattering</i>	<b>Coffee break</b>	<b>S. Lupi:</b> <i>Synchrotron and FEL IR and THz studies of condensed matter</i>

**Tuesday September the 24<sup>th</sup>**

9.00 – 10.30	10.30 – 11.00	11.00 – 12.30	12.30-14.00	14.00 -15.30	15.30 – 17.00	17.00 – 17.30	17.30 – 18.30
<b>G. Artioli:</b> <i>Synchrotron radiation in geo-sciences</i>	<b>Coffee Break</b>	<b>S. Bordiga:</b> <i>Exploring properties of functional nanomaterials</i>	<b>Lunch time</b>	<b>G. De Giudici:</b> <i>Synchrotron Radiation in environmental science</i>	<b>A. Gianoncelli:</b> <i>X-ray microscopy: chemical imaging and ptychography</i>	<b>Coffee break</b>	<b>B. Bozzini:</b> <i>Electrochemical energetics “in operando studies”</i>

**Wednesday September the 25<sup>th</sup>**

9.00 – 10.30	10.30 – 11.00	11.00 – 12.30	12.30 – 14.00	14.00 – 15.30	15.30 – 16.30	16.30 – 17.00	17.00 – 18.30
<b>L. Giannessi:</b> <i>Free electron lasers</i>	<b>Coffee Break</b>	<b>C. Maschiovecchio:</b> <i>New research opportunities with FELs</i>	<b>Lunch time</b>	<b>C. Callegari:</b> <i>Ultrafast events in low density matter</i>	<b>D. Fausti:</b> <i>Time-resolved experiments from tabletop to FELs</i>	<b>Coffee break</b>	<b>S. Di Mitri:</b> <i>NGSRs - coherence, time resolution and complementarity with FELs</i>



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**Thursday September the 26<sup>th</sup>**

9.00 – 19.00
<b>Practical at ELETTRA</b>

**Friday September the 27<sup>th</sup>**

8.30 – 10.00	10.00 – 10.30	10.30 – 12.00	12.00 – 12.30
<b>S. Pascarelli:</b> <i>Matter under extreme conditions</i>	<b>Coffee break</b>	<b>M. Dell'Angela:</b> <i>Time resolved experiments probing interfacial phenomena –SR and FELs</i>	<b>Concluding remarks</b>

**Practical sessions at ELETTRA are foreseen for Thursday the 26<sup>th</sup>:** Students will be divided into groups to attend practical sessions at selected beam-lines of ELETTRA SR and FERMI FEL