

**XVI School on Synchrotron Radiation**  
**“Gilberto Vlaic”:**  
***Fundamentals, Methods and Applications***  
*Muggia (Trieste), Italy / 19-30 September 2022*



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Elettra Sincrotrone Trieste

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

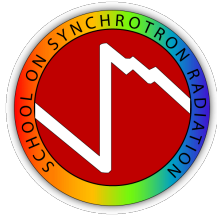
**9.00 – 9.30 Opening session**

- **Cinzia Giannini** - SILS President, Istituto di Cristallografia - CNR
- **Alfonso Franciosi** - President and CEO, Elettra - Sincrotrone Trieste S.C.p.A.
- **Giorgio Paolucci** - School Director, Elettra – Sincrotrone Trieste S.C.p.A.
- **Settimio Mobilio** - School Director, Department of Science - University Roma Tre

9.30 – 11.00	11.00 – 11.30	11.30 – 13.00	13.00 – 15.00	15.00 – 16.00	16.00 – 16.30	16.30 – 18.00
<b>A. Balerna</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>Characteristics and properties of synchrotron radiation</i>	<b>Coffee Break</b>	<b>G. Paolucci</b> <i>Synchrotron radiation facilities</i>

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

9.00 – 10.30	10.30 – 11.00	11.00 – 13.00	13.00 - 15.00	15.00 – 16.00	16.00 – 17.00	17.00 – 17.30	17.30 -18.30
<b>S. Mobilio</b> <i>Interaction between matter and radiation</i>	<b>Coffee Break</b>	<b>A.Di Cicco</b> <i>X-ray absorption and fluorescence spectroscopy</i>	<b>Lunch time</b>	<b>A.Di Cicco</b> <i>X-ray spectroscopy and data-analysis</i>	<b>M. Benfatto</b> <i>Applications of multiple scattering to X-ray absorption spectroscopy</i>	<b>Coffee break</b>	<b>C. Meneghini</b> <i>XANES spectroscopy</i>



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**Wednesday September the 21th**

9.00 – 10.30	10.30 – 11.00	11.00 – 13.00	13.00 – 15.00	15.00 – 18.00
<b>G. Stefani</b> <i>Photoelectron spectroscopy</i>	<b>Coffee Break</b>	<b>G. Stefani</b> <i>Photoelectron spectroscopy</i>	<b>Lunch time</b>	<b>I. Carlomagno</b> <i>Analysis of X-ray absorption spectroscopy data</i>

**Thursday September the 22th**

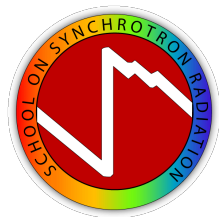
9.00 – 10.30	10.30 – 11.00	11.00 – 13.00	13.00 – 15.00	15.00 – 16.30	16.30 – 17.00	17.00 – 18.30
<b>G. Zanotti</b> <i>X-ray diffraction</i>	<b>Coffee Break</b>	<b>G. Zanotti</b> <i>X-ray diffraction</i>	<b>Lunch time</b>	<b>J.R. Plaisier</b> <i>Powder Diffraction with Synchrotron Radiation</i>	<b>Coffee Break</b>	<b>H. W. Amenitsch</b> <i>Small angles X-ray scattering</i>

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

9.00 – 10.30	10.30 – 11.00	11.00 – 13.00	13.00 – 15.00	15.00 – 18.00
<b>A.Baraldi</b> <i>High resolution and time resolved core level photoelectron spectroscopy</i>	<b>Coffee Break</b>	<b>A.Perucchi e L. Vaccari</b> <i>Infrared spectroscopies with synchrotron radiation and free electron lasers</i>	<b>Lunch time</b>	<b>M. Merlini</b> <i>Analysis of diffraction data</i>

**Saturday September the 24th**

9.00 – 12.00
<b>L. Bignardi</b> <i>Analysis of photoelectron spectroscopy data</i>



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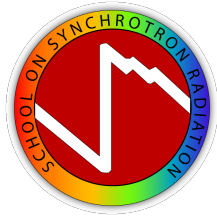
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**Monday September the 26th**

9.00 – 10.30	10.30 – 11.00	11.00 – 13.00	13.00 – 15.00	15.00 – 16.30	16.30 – 17.00	17.00 – 18.30
<b>L. Mino</b> <i>Watching nanomaterials with X-ray eyes: from nanoparticles to real devices</i>	<b>Coffee Break</b>	<b>A.Chaves</b> <i>Structural biology: Biocrystallography and an appetizer for cryo-EM and FEL</i>	<b>Lunch time</b>	<b>S. Pascarelli</b> <i>X-ray Free Electron Lasers and Ultra-Fast Science</i>	<b>Coffee Break</b>	<b>A.Moliterni</b> <i>Combining synchrotron radiation and Crystallography to decrypt the structure of materials impacting Energy, Environment and Health</i>

**Tuesday September the 27th**

9.00 – 10.30	10.30 – 11.00	11.00 – 13.00	13.00 – 15.00	15.00 – 16.30	16.30 – 17.00	17.00 – 18.30
<b>L. Monico</b> <i>Synchrotron radiation-based X-ray techniques &amp; cultural heritage objects: an integrated multi-material, multi-technique and multi-scale approach to study their composition and evolution</i>	<b>Coffee Break</b>	<b>A.Gianoncelli</b> <i>X-ray imaging</i>	<b>Lunch time</b>	<b>A.Gianoncelli</b> <i>X-ray imaging</i>	<b>Coffee break</b>	<b>P. Wernet</b> <i>Seeing chemical interactions and dynamics with time-resolved x-ray spectroscopy</i>



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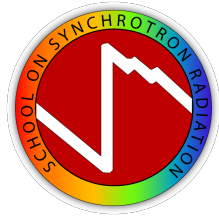
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**Wednesday September the 28<sup>th</sup>**

<b>9.00 – 10.30</b>	<b>10.30 – 11.00</b>	<b>11.00 – 13.00</b>	<b>13.00 – 15.00</b>	<b>15.00 – 16.30</b>	<b>16.30 – 17.00</b>	<b>17.00 – 18.30</b>
<b>M. Stampanoni</b> <i>Advanced X-ray imaging: from complex applications at synchrotron sources to early detection of breast cancer in hospitals</i>	<b>Coffee Break</b>	<b>O. Bunk</b> <i>X-ray Imaging in scanning mode</i>	<b>Lunch time</b>	<b>G. Aquilanti</b> <i>Extreme conditions studies at synchrotrons</i>	<b>Coffee break</b>	<b>P. Torelli</b> <i>X ray photoemission spectroscopy new applications: HAXPES and NAP-XPS.</i>
<b>20.00 – 22.00</b> <b>Poster session &amp; party</b>						



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**Thursday September the 29<sup>th</sup>**

**9.00 – 19.00**

**Visit and Practical at ELETTRA and FERMI facilities**

**Friday September the 30<sup>th</sup>**

<b>9.00 – 10.30</b>	<b>10.30 – 11.00</b>	<b>11.00 – 12.30</b>	<b>12.30– 13.00</b>
<b>E. Principi</b> <i>Overview of the FERMI seeded free electron laser</i>	<b>Coffee Break</b>	<b>G. Tromba</b> <i>Medical Imaging with synchrotron radiation</i>	<b>Concluding remarks</b>