

The main objective of this School is to provide a comprehensive overview of fundamental concepts and essentials in ultrafast X-ray and attosecond science, covering various applications. The curriculum will encompass a wide range of subjects, starting from the evolution of ultrafast sources of visible, XUV, and X-ray radiation, including High Harmonic Generation and Free Electron Lasers. It will extend to the exploration of quantum systems in diverse states of matter, spanning from the gas phase to the condensed phase.

The program offers a high-profile training opportunity for newcomers in the field, including master and PhD students, as well as postdocs and junior researchers. Participants will have the chance to discover the laboratories of Paris-Saclay University in the field of the Sciences of Light. Distinguished lecturers will each deliver two one-hour lectures on a general topic, scheduled on two different days. Additionally, they will conduct seminars delving into their own research, providing insights into current hot research topics.

The "Paris-Saclay Ultrafast X-ray Science School" is organized by the Institute for the Sciences of Light of Paris-Saclay University in collaboration with "The Frontiers of Attosecond and Ultrafast X-ray Science School" of Erice, Italy. It occurs every other year at Paris-Saclay University, alternating with the Erice School.

To ensure a diverse representation across various dimensions, the participant count will be restricted. Preference will be given to individuals actively contributing to promoting diversity, and an additional incentive will be provided to attendees who make conscious efforts to minimize their carbon footprint. The application process will serve as the initial phase, followed by registration opening exclusively to the selected participants. For more information on the 2022 edition, visit the website at this link: https://ultrafast2022.sciencesconf.org.

Application dates: January 29th-February 23th

Registration dates: March 18th-March 29th

Confirmed lecturers:

- Willem Boutu (CEA-LIDYL, Paris-Saclay University, France)
- Francesca Calegari (CFEL-DESY, Hamburg, Germany)
- James Cryan (SLAC National Accelerator Laboratory, Stanford PULSE Institute, USA)
- Anne Harth (Aalen University, Aalen, Germany)
- Alessandra Lanzara (University of California Berkeley, USA)
- Robin Santra (CFEL-DESY, Hamburg, Germany)
- Caterina Vozzi (CNR-IFN, Milano, Italy)
- Marc Vrakking (Max Born Institute, Berlin, Germany)

More info will be available on the school website: <u>https://ultrafast2024.sciencesconf.org</u> (currently under construction).