ICFO



Frontiers Research School on Advanced data processing methods

October 09, 2024 to October 11, 2024
ICFO Auditorium

In collaboration with Laserlab-Europe project
Data analysis and treatment is a key skill for experimental science. Beyond determination of the signal to noise of the detection scheme and applying an error analysis, there exist a plethora of methods to extract meaningful information from the measurement. Independent on the physical origin, the statistical significance of data determines which methods produce the most meaningful representation of the physics. Machine learning methods are just one example, others are nonlinear hypersurfaces for singular value decomposition methods.
The goal of this **3-day training school** is to introduce various methods, develop an understanding of when to use each method, and provide hands-on practice with examples. These methods are applicable to both spectroscopy and imaging.
The event will also include lectures and hands-on tutorials. Moreover, there will be networking sessions, student talks, and a poster session, offering participants the

opportunity to interact and present their own research.
The school is primarily aimed at PhD students from Laserlab partners. Postdoctoral researchers and local master's students working on relevant projects are also invited to join.

Lecturers

Martino Trassinelli (CNRS & Institute of Nanoscience de Paris, CNRS)
Josh Kas (Stanford University)
Ahmad Hosseinizadeh (University of Wisconsin-Milwaukee)
Oleg Ryabchykov, Leibniz Institute of Photonic Technology (IPHT)
Ivo H.M. van Stokkum (Vrije Universiteit Amsterdam)**?**
Chorvat Dusan (Slovak Centre of Scientific and Technical Information)**?**
Jens Uhlig (Lund University)

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Hands-on tutorials:

Hands-on tutorials will provide participants with practical experience in applying the methods discussed during the lectures. These sessions will involve guided exercises and real-world examples, allowing attendees to develop their skills and gain confidence in using these techniques for spectroscopy and imaging.

How to Apply:

There is no registration fee for the school.

Travel grants are available upon request for Laserlab-Europe participants.

Applications for attending the school and requesting a travel fellowship must be submitted online through the dedicated registration form.

Deadline: REGISTRATION IS NOW CLOSED

Registration confirmations will be sent out after the registration deadline.
For any questions, please contact us at frontiers@icfo.eu

Venue:

ICFO - The Institute of Photonics Sciences?
More information about how to get to ICFO can be found here.?

About:

? Frontiers Research Schools aim at giving talented young researchers and students worldwi e a first introduction to a thematic research area and a taste of an international resear

h environment. These schools incorporate a dynamic and social learning environment beyo d participating in lectures, including group discussions, direct interactions with the lecturer , student talks and poster presentations.

? ICFO does not tolerate any type of conduct or behaviour considered harassment or bull ing and has clearly defined policies against harassment.?

Organizing Committee: Prof. Dr.Jens Biegert, Prof. Dr. Robert Sewell