

Youth in High-Dimensions: Recent Progress in Machine Learning, High-Dimensional Statistics and Inference



29 May - 2 June 2023
An ICTP meeting
Trieste, Italy

Further information:
<http://indico.ictp.it/event/10175/>
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For the fourth time, “Youth in high dimensions” gives to young researchers from academia and industry the opportunity to gather and present recent results on high-dimensional statistical problems, in areas ranging from machine learning and inference to neuroscience or statistical physics.

Description:

Typical problems in high-dimensions include estimating noisy signals (compressed sensing, PCA and tensor decomposition), analysing (deep) neural-networks, detecting communities in large networks, or modelling disordered spin systems.

These seemingly unrelated problems share many similarities in their phenomenology and in the tools used to analyse them. The core of the field is made of a very active, diverse and quickly expanding community of physicists, computer scientists, mathematicians, information theorists and engineers, with the common desire to tackle increasingly challenging problems at the forefront of data science.

This conference aims at reinforcing the links among this interdisciplinary community, and in particular of its youngest theory-oriented members, and to bring forward the latest development happening in the high-dimensional world.

Topics:

- High-dimensional statistics
- Statistical physics
- Machine learning
- Computational neuroscience
- Complex systems
- Machine learning for science
- Statistical inference

How to apply:

Online application:
<http://indico.ictp.it/event/10175/>

Female scientists are encouraged to apply.

Grants:

A limited number of grants are available to support the attendance of selected participants, with priority given to participants from developing countries. There is no registration fee.

Directors:

M. GABRIÉ, Ecole Polytechnique, France
S. GOLDT, SISSA, Italy
M. MONDELLI, Institute of Science and Technology, Austria

Local Organiser:

J. BARBIER, ICTP, Italy

Speakers:

M. ALBERGO, New York University
E. BOIX-ADSERA, MIT
M. BUKOV, MPIKS Dresden
F. CAGNETTA, EPFL
F. CAMILLI, ICTP
K. CHANDRASEKHAR, Stanford University
R. DUDEJA, Harvard University
S. FREI, UC Berkeley
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S. PAPPALARDI, University of Köln
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J. TRINQUIER, ENS
Y. ZHANG, ISTA

Deadline:

3 April 2023

