

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



27 - 30 June 2022
An ICTP Hybrid Meeting
Trieste, Italy

Further information:

<http://indico.ictp.it/event/9804/>
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“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
- Complex systems
- Random matrix theory
- Computational neuroscience
- Statistical inference

Directors:

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

Local Organiser:

J. BARBIER, ICTP, Italy

Speakers:

A. ALTIERI, Université Paris Cité, France
A. BIETTI, NYU, USA
E. CORNACCHIA, EPFL, Switzerland
N. FLAMMARION, EPFL, Switzerland
L. FOINI, CNRS IPHT Université Paris-Saclay, France
M. GEIGER, MIT, USA
J. KADMON, The Hebrew University, Israel
J. KO, ENS Lyon, France
M. LINDSEY, NYU, USA
J. LONG, Princeton University, USA
B. MCKENNA, IST, Austria
C. PEHLEVAN, Harvard University, USA
N. RAZIN, Tel Aviv University, Israel
D. SCHRÖDER, ETH, Switzerland
M. SELLKE, Stanford University, USA
G. SICURO, King's College London, UK
C. THRAMPOULIDIS, University of British Columbia, USA
Y. WEI, University of Pennsylvania, USA
F. YANG, ETH, Switzerland
Y. ZHU, University of California, USA

How to apply:

Online application:
<http://indico.ictp.it/event/9804/>

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.

Deadlines:

29 April 2022

Applications needing financial support and/or visa

20 June 2022

Only online applications



The Abdus Salam
**International Centre
for Theoretical Physics**
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Trieste, Italy

