



The Abdus Salam
International Centre
for Theoretical Physics



Winter School on Number Theory and Physics

DESCRIPTION:

This winter school is focused on the mathematical aspects of topics in arithmetic geometry, particularly arithmetic aspects of the Langlands program, which have appeared in the context of string theory and quantum field theory. This activity will also focus on developing explicit computational methods via tutorials, and participant led mini-projects. This is the third event in a series meetings on number theory, arithmetic geometry, and connection to physics.

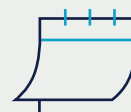
TOPICS

- Hodge theory
- Arithmetic geometry of periods
- Harmonic Maass forms
- K3 surfaces
- Automorphic representations
- Hypergeometric functions and local systems

SPEAKERS:

C. Alfes, Bielefeld University, Germany
F. Brown, Oxford University, UK*
J. Burgos Gil, ICMAT Madrid, Spain
X. de la Ossa, Oxford University, UK
S. Friedberg, Boston College, USA
A. Kidambi, MPI-MIS Leipzig, Germany*
C. Nazaroglu, University of Cologne, Germany
D. Persson, Chalmers University of Technology, Sweden
F. Rodriguez Villegas, ICTP, Italy
M. Vlasenko, IMPAN Warsaw, Poland and Kyiv School of Economics, Ukraine
U. Whitcher, University of Michigan, USA
F. Zerbini, UNED Madrid, Spain

*To be Confirmed



17 - 28 November 2025



Trieste, Italy



**Deadline:
7 September 2025**

DIRECTORS:

A. Kidambi, MPI-MIS Leipzig, Germany
A. Kleinschmidt, MPI Potsdam, Germany
A. Salerno, NSF, USA
J. M. Voight, University of Sydney, Australia

LOCAL ORGANISER:

F. Rodriguez Villegas, (ICTP, Italy)

FURTHER INFORMATION:



E-mail: smr4162@ictp.it

Web: <https://indico.ictp.it/event/10965/>

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.

