



The Arithmetic of the Langlands Program

Organizers:

Frank Calegari, Ana Caraiani, Laurent Fargues, Peter Scholze

The Langlands program aims to relate systems of polynomial equations with integer coefficients to automorphic forms, i.e. functions on symmetric spaces with a large number of discrete symmetries.

The focus of the trimester will be on some manifestations of this program, including:

- moduli spaces of shtukas
- p -adic techniques in local Langlands and the relation to geometric Langlands
- Shimura varieties and more general spaces in global Langlands

We will have the following activities:

Summer School on the Arithmetic of the Langlands Program
(May 8–12, 2023)

Conference on Local Langlands and p -adic methods
(June 12–16, 2023)

Young Researchers Network on the Arithmetic of the Langlands Program
(July 14–20, 2023)

Conference on Global Langlands, Shimura varieties, and shtukas
(August 7–11, 2023)

Those planning to participate include:

Christophe Breuil
Pierre Colmez
Gabriel Dospinescu
Tony Feng
Jessica Fintzen
Dennis Gaitsgory
Toby Gee

Michael Harris
Eugen Hellmann
Tasho Kaletha
Kiran Kedlaya
Chandrashekar Khare
Mark Kisin
Kai-Wen Lan

Arthur-César Le Bras
Sophie Morel
Wiesława Nizioł
Lue Pan
Vytautas Paskunas
Vincent Pilloni
Benjamin Schraen

Benoit Stroh
Richard Taylor
Eva Viehmann
Zhiwei Yun
Sarah Zerbes
Wei Zhang
Xinwen Zhu



Call for participation: The Hausdorff Research Institute offers visiting positions for the whole period of the trimester program (for senior scientists, postdocs and PhD students). The deadline for applications **November 30, 2022**.

Please send applications (including CV and, for postdocs and PhD students, a letter of recommendation) using our online application form at <https://www.him.uni-bonn.de/index.php?id=4834>. In addition numerous fellowships for shorter periods are available.