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HAUSDORFF RESEARCH INSTITUTE FOR MATHEMATICS

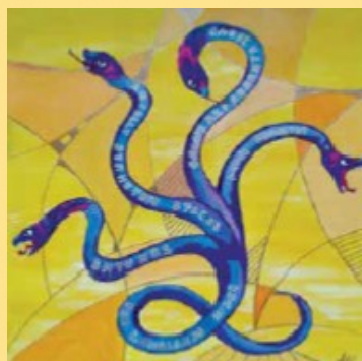UNIVERSITÄT BONN

TRIMESTER PROGRAM | MAY – AUGUST 2023

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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 17-21, 2023)

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

Those planning to participate include:

Christophe Breuil	Michael Harris	Arthur-César Le Bras	Benoit Stroh
Pierre Colmez	Eugen Hellmann	Sophie Morel	Richard Taylor
Gabriel Dospinescu	Tasho Kaletha	Wieslawa Niziol	Eva Viehmann
Tony Feng	Kiran Kedlaya	Lue Pan	Zhiwei Yun
Jessica Fintzen	Chandrashekhar Khare	Vytautas Paskunas	Sarah Zerbes
Dennis Gaitsgory	Mark Kisin	Vincent Pilloni	Wei Zhang
Toby Gee	Kai-Wen Lan	Benjamin Schraen	Xinwen Zhu