

New Advances in the Langlands Program: Geometry and Arithmetic
30 September-4 October 2024
L1

Schedule

Monday 30 September

- 9:00-10:00 Toby Gee, *The Reduction modulo p of Crystalline Breuil—Kisin Modules*
10:00-10:30 Coffee
10:30-11:30 Teruhisa Koshikawa, *A-parameters and eigensheaves*
11:30-11:45 Break
11:45-12:45 Si Ying Lee, *Stacks of p -isogenies with G -structure*
12:45-14:30 Lunch
14:30-15:30 Tony Feng, *Modular functoriality in the Local Langlands correspondence*
15:30-16:00 Coffee
16:00-17:00 Alice Pozzi, *Modular generating series for Heegner objects*

Tuesday 1 October

- 9:00-10:00 George Boxer, *Modularity theorems for abelian surfaces*
10:00-10:30 Coffee
10:30-11:30 Juan Esteban Rodriguez Camargo, *Integral Hodge-Tate decompositions of p -adic Siegel modular forms*
11:30-12:45 Break
12:45-14:30 Lunch
14:30-15:30 Naomi Sweeting, *A new bipartite Euler system and Selmer ranks for some four-dimensional symplectic Galois representations*
15:30-16:00 Coffee
16:00-17:00 Christopher Skinner, *Classes in the Galois cohomology of automorphic Galois representations*

Wednesday, 2 October – Clay Research Conference, L1

- 10:00-11:00 Ana Caraiani, *The cohomology of Shimura varieties - a survey of recent developments*
11:00-11:30 Coffee
11:30-12:30 Mark Andrea De Cataldo, *The $P=W$ Conjecture in Non Abelian Hodge Theory*
12:30-14:00 Lunch
14:00-15:00 Timothy Gowers, *Some recent developments in combinatorics*
15:00-15:30 Coffee
15:30-16:30 Rahul Pandharipande, *Cycles on the moduli space of abelian varieties*
16:30-17:30 Chandrashekar Khare, *The work of James Newton and Jack Thorne*
Philippe Michel, *The work of Paul Nelson*
Presentation of the 2024 Clay Research Awards
17:30-19:00 Reception in the Mathematical Institute
19:00 Dinner for invited guests, Exeter College

Thursday 3 October

- 9:00-10:00 Sarah Zerbes, *On the Bloch—Kato conjecture for Asai representations*
10:00-10:30 Coffee
10:30-11:30 Ian Gleason, *Stacks of p -adic Shtukas and the Categorical Local Langlands*
11:30-11:45 Break
11:45-12:45 Jeff Manning, *Congruence modules in higher codimension*
12:45-14:30 Lunch
14:30-15:30 Mingjia Zhang, *Igusa stacks and Shimura varieties*

15:30-16:00 Coffee
16:00-17:00 Peter Scholze, *The Habiro ring of a number field*

Friday 4 October

9:30-10:30 Matthew Emerton, *Aspects of p -adic categorical local Langlands for $GL_2(\mathbb{Q}_p)$*
10:30-11:00 Coffee
11:00-12:00 Andrew Wiles, *Non-abelian descent and modularity*
12:00-14:00 Lunch
14:00-15:00 Pol van Hoften, *Igusa stacks and exotic Hecke correspondences*
15:00-15:30 Coffee
15:30-16:30 Jack Thorne, *The Ramanujan Conjecture for Bianchi Modular Forms*