36TH Leonidas Alaoglu Memorial Lecture

Local Langlands Conjectures

Michael Harris Professor of Mathematics Columbia University



The Langlands program is a vast collection of conjectural relations between Galois theory, geometry, and the representation theory of groups. Holding it all together are the Local Langlands Conjectures, which relate the Galois theory of local fields, like the field of power series in one variable over a finite field - the next simplest case, in many respects, after the Galois theory of finite fields - to the theory of infinite-dimensional representations of matrix groups with coefficients in these same fields. Recent progress on these conjectures has been so successful that there are now several versions of the Local Langlands Conjectures, and a fundamental problem is to show that they are all equivalent. I will review some of this work and explain some recent results that indicate that there is only one Local Langlands Conjecture after all.

Tuesday, January 10, 2023, 4-5 pm 310 Linde Hall

Getting Here: Parking is available in lot 3 (underground) off California Blvd. between Wilson & Arden. Linde Hall is located directly across the street on the east side.