RUTGERS

UNIVERSITY | NEWARK

DEPARTMENT OF MATHEMATICS AND COMPUTER SCIENCE

Colloquium

BREUIL–KISIN MODULES AND INTEGRAL p-ADIC HODGE THEORY

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ABSTRACT:

In complex geometry, one uses Hodge structures to encode the linear algebraic structures of singular and de Rham cohomologies. In this talk, we construct a category of Breuil–Kisin G_K-modules to encode the (semi-) linear algebraic structures of the integral p-adic cohomologies recently developed by Bhatt–Morrow–Scholze and Bhatt–Scholze. These modules also classify integral semi-stable Galois representations.

4 – 5pm
Wednesday, November 29, 2023
Room 204, Smith Hall