Abstract

The Fundamental Lemma of Langlands and Shelstad was a conjecture about integrals over $p$-adic varieties, of fundamental importance to the theory of automorphic forms. It was proven by Ngô Bảo Châu in 2009, a proof for which he was awarded the Fields Medal in 2010. The proof takes a purely combinatorial, but difficult, statement and transforms it into a deep statement about the cohomology of certain maps of algebraic schemes, spanning an impressive array of mathematical fields. I will give an overview of this chain of ideas, which should be accessible to graduate students.

Wednesday, 20 October 2010
4:00 pm
Smith Hall 204
Tea and refreshments will be served at 3:45pm.

http://math.newark.rutgers.edu/~xiaowwan/Colloquium/