



Speaker: Don Larson
Penn State Altoona

Tuesday, October 27, 2015

4:30 PM

229 Hayes-Healy Hall

Title: Modular forms and the beta family

Abstract:

Let p be a prime greater than 3. In 2008, M. Behrens proved the existence of a 1-1 correspondence between beta elements in the p -primary Adams-Novikov spectral sequence and modular forms over \mathbb{Z} up to certain congruence conditions depending on p . The proof used homotopical properties of a spectrum denoted Q . In this talk, I will briefly highlight some previous work on the homotopy of Q at the prime 3 (where Behrens' correspondence is not known to exist), and then I will describe work in progress at higher primes that attempts to make the correspondence explicit.