

BOSTON UNIVERSITY NUMBER THEORY SEMINAR

On mod p local-global compatibility for $GL(3)$ in the ordinary case

Florian Herzig
(Univ. of Toronto)

Monday, Feb. 10 at 4:15 pm
111 Cummington Street, MCS B21
Tea and cookies in MCS 144 at 4:00 pm

Abstract: Suppose that $\bar{\rho} : G_{\mathbf{Q}_p} \rightarrow GL_3(\overline{\mathbf{F}}_p)$ is a maximally nonsplit, ordinary, Fontaine-Laffaille Galois representation. Then its "extension class" is determined by an invariant in $\overline{\mathbf{F}}_p$. In a global situation, under suitable hypotheses, we show that this invariant can be calculated using $GL_3(\mathbf{Q}_p)$ -representation theory. This is joint work in progress with Stefano Morra.