

Florian Herzig

Institute for Advanced Study, Princeton

will speak on

Modular Representations of p -adic Groups

ABSTRACT: The Langlands program relates complex representations of $GL_n(\mathbb{Q}_p)$ to n -dimensional Galois representations. For $n = 1$ this is explained by class field theory and for $n = 2$ this is closely related to the theory of modular forms. For general n , this is now understood by the work of Harris-Taylor and Henniart. In the last decade, a mod- p (as well as a p -adic) version of the Langlands program have been emerging, and they have already played an important role in some recent progress in number theory. But so far understanding has been limited to $n = 1$ and 2. We survey some of the known story in the classical and in the mod p case, and then discuss some recent progress on the classification of mod p representations of $GL_n(\mathbb{Q}_p)$, as time permits.

MONDAY, FEBRUARY 14, 2011

LECTURE AT 4:00 PM

COFFEE, TEA, AND REFRESHMENTS FROM 3:30 PM

ROOM 617, WACHMAN BUILDING

DEPARTMENT OF MATHEMATICS