

**Speaker:** Rachel Ollivier

**Title:** Mod  $p$  representations of  $p$ -adic  $GL(n)$  and Hecke modules

**Abstract:**

We will describe the structure of the (pro- $p$ ) Iwahori-Hecke algebra with integer coefficients of  $p$ -adic  $GL(n)$  and its modules in characteristic  $p$ . We will also explore the properties of the natural link between those modules and the smooth mod  $p$  representations of  $p$ -adic  $GL(n)$ . We will point out a bijection between some "supersingular" Hecke modules and some Galois representations which suggests a "numerical Langlands correspondence" mod  $p$  on the side of the Hecke modules.