Mathematics, Statistics, and Computer Science **@ UIC**

Number Theory Seminar

The Breuil-Mézard conjecture when $l \neq p$

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Abstract: Let $G = \mathrm{Gal}(\overline{\mathbb{Q}}_p/\mathbb{Q}_p)$. The Breuil-Mézard conjecture relates the complexity of deformation rings for mod p Galois representations of G with prescribed p-adic Hodge type to the reduction mod p of representations of $\mathrm{GL}_n(\mathbb{Z}_p)$ associated to that type. It has been important in the p-adic Langlands program and in first proof of the Fontaine-Mazur conjecture for GL_2. We develop an analogous conjecture for mod l representations of G when $l \neq p$, and explain how it can be proved with global methods.

Tuesday, April 4 at 11:00 AM in SEO 612