The Trivial Notions Seminar
Proudly Announces

Discuss your favorite Galois representation in ten words or less

A talk by
Jay Pottharst

Abstract
We will show that $p$-adic Galois representations of a field of characteristic $p$ are very simple: namely, they can be completely determined by specifying a single matrix. This description is in terms of objects called étale $\varphi$-modules, which come from semilinear algebra. We will state the Dieudonné–Manin theorem, which shows how $\varphi$-modules are very nice compared to their corresponding linear algebraic objects. Time permitting, we will sketchily describe how these objects fit into algebraic geometry. Prerequisites: familiarity with (complete) DVRs, including the $p$-adic numbers, and with Hilbert’s Theorem 90.

Friday, September 29th at 2:00 pm
Science Center 507