

*“... a good idea will make its own way in the world, eventually discovering that it had so many fathers it could dispense with a mother.”*

R. P. Langlands, *Base Change for  $\mathbf{GL}_2$* , Foreword, p. i.

The Trivial Notions Seminar  
Proudly Announces

The non-abelian  $p$ -curvature conjecture

A talk by

Thanos D. Papaïoannou

**Abstract**

We will start on the shores of algebraic differential equations and the classical  $p$ -curvature conjecture. After frolicking for a bit, we will walk from obvious idea to obvious idea and onto a little boat of analogies, and we'll sail to the shores of Carlos Simpson's non-abelian world. There, we will formulate the correct analogue of the  $p$ -curvature conjecture, and sketch its proof in the case of non-abelian de Rham cohomology—a special case of Bost's celebrated conjecture on the algebraicity of the leaves of foliations on varieties defined over number fields. The talk will require no previous exposure to the  $p$ -curvature conjecture or non-abelian cohomology of the audience, but *will* require patience with corny metaphors.

Thursday March 14<sup>th</sup>, at 1:00 pm  
Science Center 310