The Trivial Notions Seminar
Proudly Announces

Grothendieck's Monodromy Theorem

A talk by

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Abstract

Given a proper smooth family $X \to S$ of complex algebraic varieties over a curve S with several punctures, taking the k-th cohomology of the fibers produces a local system on the base S. One might wonder how to characterize local systems that appear from families of algebraic varieties in that way. A condition which has to be satisfied by local systems coming from geometry is given by local monodromy theorem: the action of a small loop around any puncture on the fiber of the local system is given by an operator whose eigenvalues are roots of unity. This can be deduced formally from certain functoriality and base change properties of the etale cohomology (no familiarity with etale cohomology will be required to understand the argument).

Friday, September 13^{th}, at 12:30 pm
Science Center 530