"The theory of Lie groups is, I think, without question the most central topic in mathematics. It's hard to think of a subject that doesn't involve Lie groups and Lie algebras ... even number theory does."

-Joe Harris, uncredited

## The Trivial Notions Seminar Proudly Announces

## ADE Singularities and Slodowy Slices

### A talk by Francesco Cavazzani

#### Abstract

What are the finite subgroups  $\Gamma \subset SL_2(\mathbb{C})$ ? As it happens for many questions in Lie theory, we have as answer a complete classification in terms of Dynkin diagrams of the kind A, D and E. By the quotients  $\mathbb{C}^2/\Gamma$ , we get all simple surface singularities, also called du Val singularities or ADE singularities; Dynkin diagrams here appear again in the minimal resolution; as main theorem, we will show a further connection with Lie groups, the Grothendieck-Brieskorn-Slodowy theorem, relating the universal deformation of the singularity with the so called Slodowy slice in the quotient of the Lie algebra by the adjoint action. The talk will be very Italian style.

# Thursday October 3<sup>rd</sup>, at 1:00 pm Science Center 507