"Stop thinking, and end your problems"

-Lao Tzu

The Trivial Notions Seminar
Proudly Announces

Monodromy, Moduli Spaces and Mirror Manifolds

A talk by
Jie Zhou

Abstract

Starting by a brief introduction to the topological description (self-automorphisms on local systems) and geometric description (parallel transport via Gauss-Manin connection on flat vector bundles) of monodromy transformation, we will then calculate the (local) monodromy of some elementary examples using both methods. After that we will proceed to a concise introduction to mirror symmetry from the viewpoint of the chiral/Frobenius ring structures living on the deformation/tangent spaces, and explain why monodromy is important in the studies of moduli spaces and mirror manifolds. As a byproduct of mirror symmetry, we can see how the counting of genus 0 Gromov-Witten invariants on certain CY manifolds could be reduced to the calculation of periods on the mirror CY manifolds.

Thursday October 4$^{\text{th}}$, at 1:30 pm
Science Center 507