"Geometry is the science of correct reasoning on incorrect figures."

— George Pólya

## The Trivial Notions Seminar Proudly Announces

## Hamiltonian Diffeomorphism Groups

## A talk by Sahana Vasudevan

## Abstract

In this talk, I will introduce Hamiltonian diffeomorphism groups from algebraic and geometric perspectives. These are topological groups associated to symplectic manifolds that also carry a Finsler metric structure called the Hofer metric. On the algebraic side, Hamiltonian diffeomorphism groups are simple groups but completely determine the underlying symplectic manifold. On the geometric side, the fact that the Hofer metric is actually non-degenerate is a deep result in symplectic geometry. I will talk about these results and related questions.

> Friday, February 1<sup>st</sup>, at 1:00 pm Science Center 530