## V.H. Prathamesh Turaga Indian Institute of Science "Knots, Braids and First Order Logic"

## Abstract:

Determining when two knots are equivalent (more precisely isotopic) is a fundamental problem in topology. Here we formulate this problem in terms of Predicate Calculus, using the formulation of knots in terms of braids and some basic topological results. More concretely, we describe a finite set of axioms in first order logic, such that models of these axioms can be used to distinguish knots.