

Indian Statistical Institute, Chennai Centre

Seminar Announcement / संगोष्ठी की घोषणा

Date/ तारीख : 6th April, 2017 (Thursday).

Time/ समय : 3pm – 4pm.

Venue/ स्थान : SETS Auditorium, ISI-Chennai.

Speaker/ वक्ता: Dr. T. V. H. Prathamesh, Institute of Mathematical Sciences.

Title/ शीर्षक: Mechanising Knot Theory

Abstract: Mechanisation of Mathematics refers to use of computers to generate or to check mathematical proofs. An automated theorem prover is a software tool which generates proofs and counter examples, while an interactive theorem prover is a software tool which partly automates and checks such 'proofs' by human-machine collaboration. The process of mechanization of mathematics refers to the use of one of the above-mentioned tools. The impact of recent developments in automated and interactive theorem proving on the practice of mathematical research ranges from their use in verification of controversial and experimental mathematical proofs, to a renewed interest in logical foundations of mathematics.

In this talk, I will discuss my work about mechanisation of knot theory. This work includes includes, thought is not restricted to, my earlier work on formalization of knot theory in a higher order logic based interactive theorem prover- Isabelle. I will also describe a recent work with D. Kulkarni about use of first order logic based automated theorem provers to classify a class of knots of importance in differential geometry called Legendrian knots, which led to discovery of a new invariant of Legendrian knots.

No prerequisites in Knot theory or Automated/Interactive Theorem Proving, shall be assumed.

सभी को आमंत्रित कर रहे हैं | All are invited.

