



ICTS

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TATA INSTITUTE OF FUNDAMENTAL RESEARCH

## **ICTS Seminar**

Title : Quantum Hall Nematics

Speaker : Shivaji Sondhi, Princeton University, USA

Date : Tuesday, August 21, 2018

Time : 4:00 PM

Venue : Emmy Noether Seminar Room, ICTS Campus, Bangalore

Abstract : Quantum Hall nematics are states that combine the topological order of the quantum Hall effect with the orientational ordering of nematics. I will describe how discrete nematics arise in multi-valley systems and a set of remarkable experiments on Bismuth which have observed their orientational ordering directly. I will also comment on the possibility of a continuous nematic state and its connection with some work of Haldane on an alternate field theory for quantum Hall systems.