ICTS Statistical Physics and Condensed Matter Seminar

Title : Liouville, Mach, Mermin, Wagner and Classical Fractons

Speaker : Shivaji Lal Sondhi (Rudolph Centre for Theoretical Physics, University of Oxford)

Date : Tuesday, 2nd April 2024

Time : 02:30 PM (IST)

Abstract : Classical fractons - classical particles obeying multipole conservation laws - manage to evade two well known folk theorems about Hamiltonian systems. The first is that Liouville's theorem forbids attractors and second that the Mermin-Wagner theorem forbids the breaking of a continuous translational symmetry in $d=1$ and 2 at finite energy densities. I will explain how they do this via Machian dynamics and how one can understand these results.

Venue : Ramanujan Lecture Hall
Zoom link: https://icts-res-in.zoom.us/j/98894062565?pwd=RmdYMnlYclA4ckl0VjZHbmNWUE1XQT09
Meeting ID: 988 9406 2565
Passcode: 282802