INDIAN ASSOCIATION FOR THE CULTIVATION OF SCIENCE
2A & 2B, Raja S.C. Mullick Road, Jadavpur, Kolkata-700032, India

Seminar Notice

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School of Physical Sciences

Title:	**Topological entropy in three dimensions**
Speaker:	**Naveen Surendran, I.I.S.T., Thiruvananthapuram**
Date:	**November 28, 2018 (Wednesday)**
Time:	**3:00 p.m.**
Venue:	**Physics Seminar Room (C406),3rd Floor, Centenary Building, IACS**
Abstract:	Entanglement entropy in gapped many body systems obeys an area law. In two dimensions, a constant term in the entropy, called Topological Entropy (TE), contains information about topological excitations in the system, by relating TE to the total quantum dimension. We ask whether such a relationship exists in three dimensions also, using the Kitaev spin model on the hyperhoneycomb lattice as an example. We find that in this case the general relationship in 2D between TE and quantum dimension does not hold.

All are cordially invited to attend the seminar