

## **Internal Seminar**

### **Band topology induced through interactions**

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There are certain phases of matter, such as topological insulators, wherein electron bands are characterised by a topological invariant that leads to localised edge states. Recently, it has been realised that such topological properties need not be restricted to the ground state, and excitations could be topological as well. We investigated the band topology in a Fermionic chain, Kondo coupled, to an antiferromagnetic spin ladder possessing non-trivial topological phases. We found signatures of interaction-induced topological phases in the Fermionic chain which is otherwise in a topologically trivial phase.

***Tuesday, Nov 12<sup>th</sup> 2024***

***14:30 Hrs***

***CR-1, TIFR-H***