

ENTANGLEMENT OR COMPLEXITY? THE CHAUFFEUR OF FASTER BATTERY



Professor

Sibasish Ghosh

**The Institute of Mathematical
Sciences, Chennai**

7th February, 2024
PAMU Seminar Room
02:30 PM

*Everyone is invited to
attend*

ABSTRACT

In this (ongoing) work, we try to address the main guiding feature of a many-body quantum system, when used as a battery, to have faster charging power of the battery. Unlike the existing common belief (that higher the many-body entanglement in the time-evolved state of the battery, faster will be the charging process), we try to argue here - - substantiated with examples from 1D quantum spin chains -- that it is the 'circuit complexity' of the many-body charging Hamiltonian that is indeed the fundamental ingredient for having faster charging.

