

THEORETICAL PHYSICS SEMINAR

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Title: Quantum state discrimination by LOCC (local operations and  
Classical communication)

Speaker: Dr. Som S. Bandyopadhyay

Date/Time/Venue: 5th February (Thursday)/4:00 PM/ Room No. 469

ABSTRACT

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Suppose a composite quantum system is known to be in one of many states, not necessarily orthogonal, such that its parts are distributed among spatially separated observers. The goal is to learn about the state of the system using only local quantum operations and classical communication between the parties (LOCC). This problem, known as local state discrimination, is of considerable interest, as in many instances the information obtainable by LOCC is strictly less than that achieved with global measurements even when the states are mutually orthogonal. Thus the problem of local state discrimination serves to explore fundamental questions related to local access of global information and the relationship between entanglement and local distinguishability. In this talk I will present a self contained review of local state discrimination along with some recent results.

All are welcome to attend