

Indian Statistical Institute North-East Centre Tezpur, Assam

Title: Evolutionary Dynamics in the Stag Hunt Game

Speaker: Prof. Ratul Lahkar, Ashoka University

When

January 6, 2025 at 2.15 PM

Where

Seminar Room, Administrative Building

ABSTRACT

The stag hunt game is a two-strategy game illustrating the tension between cooperation and safety. Cooperating on the Pareto efficient equilibrium is risky as miscoordination can cause a high loss. On the other hand, the equilibrium generated by the safe strategy, whose payoff does not depend upon the opponent's action, is Pareto inferior. We apply evolutionary game theory to consider equilibrium selection in this game. Equilibrium selection under classical dynamics such as the best response dynamic depends upon the initial state. Unique equilibrium selection is, however, possible under more recently developed some evolutionary dynamics such as the best experienced payoff dynamic.