

Speaker: Prof. Yiming Long, Chern Institute of Mathematics, Nankai University, Tianjin, China.

Title : Periodic solution orbits of Hamiltonian systems via index iteration theory for symplectic paths-a survey.

Abstract : Periodic solution orbits of Hamiltonian systems is a traditional and active topic in Hamiltonian dynamics. A useful tool to study these orbits is the index iteration theory for symplectic paths. In this talk I shall give a brief introduction on this index iteration theory and a survey on the problems on periodic solution orbits of Hamiltonian systems with prescribed energy, linear stability of certain solutions of 3-body problems, as well as other related problems including some recent new results using this index iteration theory.