For Favor of Posting

Department of Mathematics
The Chinese University of Hong Kong

數學系
香港中文大學

Phone: (852) 3943 7988 / 3943 7989 • Fax: (852) 2603 5154 • Email: dept@math.cuhk.edu.hk
Rm. 220, Lady Shaw Building, The Chinese University of Hong Kong, Shatin, N.T., Hong Kong

Seminar

Brake Obits in Even Convex Reversible Hamiltonian Systems

Professor Duanzhi Zhang
School of Mathematical Sciences
Nankai University

Abstract: In this talk we will introduce the Maslov-type index and its iteration theory with brake orbit boundary for symplectic paths. As applications, we study the multiplicity and stability of brake orbits in even convex reversible compact hypersurfaces in $\mathbf{R}^{2n}$. We prove that Seifert's Conjecture on brake orbits holds in the even convex case. If there are exactly n geometrically brake orbits on such hypersurface, we prove that at least $n - 2$ brake orbits among them possess irrational mean Maslov-type indices. In the case $n = 2$, we can prove that both of them should be elliptic. *Joint works with Chungen Liu and Zhiping Fan*

Date: Tuesday, 26 January 2016
Time: 3:00 p.m. – 4:00 p.m.
Venue: Room 222, Lady Shaw Building,
The Chinese University of Hong Kong, Shatin

All are Welcome!