Week 1 Abstracts

Minicourse by Michael Entov (Technion),

TITLE: Filtered Legendrian contact homology and contact dynamics

ABSTRACT: In this mini-course, I will discuss how a filtered version of the Legendrian contact homology (a major machinery and object of study in contact topology) can be used to obtain new information about contact Hamiltonian flows on contact manifolds. The applications concern conformal factors of contactomorphisms and trajectories of contact Hamiltonian flows connecting two disjoint Legendrian submanifolds or starting on one of them and asymptotic to the other.
This is a joint work with L.Polterovich.

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Alessandro Bravetti (University of Camerino)

Title: Contact Hamiltonian Systems: from mechanics to thermodynamics and more

Abstract: This seminar aims to introduce contact Hamiltonian systems and explain why they have attracted growing interest. Along the way, we review their main structural properties and present applications that showcase their relevance across mechanics, thermodynamics and statistics (optimization and sampling).

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Georgios Dimitroglou Rizell (Uppsala University)

Title: A survey of quantitative results for Legendrian submanifolds

Abstract: We give a survey of results concerning the properties of Legendrian submanifolds of contact manifolds from the perspective of the Chekanov-Hofer-Schelukhin norm, such as (un)boudnedness, bounds on displacement energies, and relations to spectral norms. We also discuss rigidity of C0-limits of Legendrians. This is based upon joint projects with M. Sullivan and R. Leclercq.