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ASYMMETRY IN DYNAMICS

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Abstract

The origins of the subject of dynamical systems lie in classical mechanics, in the study of such fundamental problems as the stability of the solar system. A theme that traces back to Noether's theorem is that symmetries in such physical systems must occur for a reason: for example, if the motion of a system does not depend on position in space, then there must be a conserved quantity, such as angular momentum. I will discuss, in the broader contexts of modern dynamics, how this theme expands and reoccurs in beautiful ways: on the one hand, a typical object has the minimum amount of symmetry possible, and on the other hand, a little extra symmetry implies a lot of symmetry, a phenomenon known as rigidity.

Date : Wednesday, June 15, 2022

Time: 18:00

Place: Zoom