

Contact mechanics and numerical integration

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16:00-17:00h ONLINE via ZOOM

(locals may attend the talk in M.G.004)

Analysis & Geometry Seminar, Antwerpen

We will introduce Hamiltonian systems on contact manifolds, the odd dimensional sisters to the usual Hamiltonian systems. Their odd dimensionality introduces an extra freedom that allows the energy to vary which is not necessarily restricted to a time-dependence. In the talk, we will review some of the most important properties of contact Hamiltonian systems, show how we can simulate their dynamics ensuring the preservation of their underlying geometric structure, and provide some interesting example to motivate the recent surge of interest in their analytical and numerical study.