

Geometric aspects of Integrability: an elementary overview

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The talk will introduce in an elementary way both the basic ideas of Integrability and some relevant examples of Integrable Systems from a viewpoint which makes special emphasis on geometric aspects. Important particular examples from the ‘basic ones’ (e.g. Kepler problem, harmonic oscillator) to other more complicated ones (e.g. Calogero-Sutherland), will be presented. Then some characterizations of Integrable systems in spaces with a maximal (geometric) invariance group will be discussed, in particular those related with the Stackel separable form. A mention of some open conjectures on Integrable systems and of a novel aspect, the construction of integrable systems from coalgebras, will close the talk.