

Speaker:
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Title:
A first attempt at sub-Riemannian celestial mechanics.

Abstract:

In 2011, Richard gave a mini-course on the three-body problem in Madrid. Many of the participants were devotees of his sub-Riemannian work, and naturally asked what were the connections between sub-Riemannian geometry and celestial mechanics. Lacking a good answer, Richard invented one, and the Kepler-Heisenberg problem was born. Here, we will introduce this strange but surprisingly beautiful system and document the successes and failures in our attempts at a solution.