QUN WANG, Toronto

Choreographies in the N-Vortex Problem

Initially emerged from the study of the N-body problem in celestial mechanics, the choreographies are periodic orbits in which all the bodies are equally spread out along a single trajectory. In this talk, we study the existence of the choreographies in the N-vortex problem arising from the Euler equation. The identical vorticity permits us to construct the symmetric holomorphic spheres. Using this tool we prove that there exist infinitely many non-trivial choreographies for the identical n-vortex problem.