

Speaker: Francisco Javier TORRES DE LIZAUR (University of Seville, Spain)

Title: Quasiperiodic solutions and invariant manifolds of the Euler equation

Abstract: In this talk I will review recent results on existence and dynamics of finite dimensional invariant manifolds of the Euler equation. These are families of divergence-free fields, parametrized by some manifold N , with the property that the solutions of the Euler equation with initial condition in the family exist and remain there for all time, defining a finite-dimensional ODE on N . Families of periodic and quasiperiodic solutions are special cases of invariant manifolds where N are tori and the ODEs are linear flows. The talk is based on joint work with A. Enciso and D. Peralta-Salas.