FRANCISCO TORRES DE LIZAUR, University of Toronto

Knots and links in Beltrami fields

Beltrami fields on a 3-dimensional compact manifold are eigenfields of the curl operator. They describe a stationary ideal fluid whose vorticity and velocity are aligned. In this talk I will show that, on the round 3-sphere and the flat 3-torus, there are Beltrami fields having a finite set of periodic orbits and invariant tori of any given knot and link type, provided the eigenvalue is large enough. This is joint work with Alberto Enciso and Daniel Peralta-Salas.