Seminar/Talk

Weighted loops, coadjoint orbits, and characters

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For the group of area preserving diffeomorphisms we study a class of coadjoint orbits consisting of weighted loops in the plane. They model singular vorticities in ideal 2D fluids supported on closed curves, called vortex loops. We give an Onsager-Feynman condition for the existence of a character associated with a vortex loop. Similar results hold in higher dimensions, for the coadjoint orbits of the group of volume preserving diffeomorphisms consisting of vortex sheets.

Thursday, September 4, 2025 10:00am - 11:30am

Mondi Seminar Room 3, Central Building