Profile Decompositions and Navier-Stokes

Gabriel Koch

Abstract:

We use the dispersive method of "critical elements" established by Kenig and Merle to give an alternative proof of a well-known Navier-Stokes regularity criterion due to Escauriaza, Seregin and Sverak. The key tool is a decomposition into profiles of bounded sequences in critical spaces. This is joint work with I. Gallagher and F. Planchon, and is based on a previous collaboration with C. Kenig which addressed a special case.