

SEMINARIO EDP

Expositor: André de Laire (U. Lille, Francia)

Title:

Traveling waves for some nonlocal 1D Gross-Pitaevskii equations with nonzero conditions at infinity

Abstract:

We consider a nonlocal family of Gross-Pitaevskii equations with nonzero condition at infinity in dimension one. In this talk, we provide conditions on the nonlocal interaction such that there is a branch of traveling waves solutions with nonvanishing conditions at infinity. Moreover, we show that the branch is orbitally stable. In this manner, this result generalizes known properties for the short-range interaction case given by a Dirac delta function. Our proof relies on the minimization of the energy at fixed momentum and a concentration-compactness argument.

Miércoles 18 de Diciembre a las 16:00 hrs, Sala de Seminario Felipe Álvarez Daziano, 5to piso, Torre Norte de Beauchef 851.