

CMM PDE Seminar

Speaker: Lisbeth Carrero, Universidad de O'Higgins, Rancagua

Title: "Periodic fractional Ambrosetti-Prodi for one-dimensional problem with drift"

Abstract: We prove Ambrosetti-Prodi type results for periodic solutions of some one-dimensional nonlinear problems that can have drift term whose principal operator is the fractional Laplacian of order $s \in (0, 1)$. We establish conditions for the existence and nonexistence of solutions of those problems. The proofs of the existence results are based on the sub-supersolution method combined with topological degree type arguments. We also obtain a priori bounds in order to get multiplicity results. We also prove that the solutions are $C^{1,\alpha}$ under some regularity assumptions in the nonlinearities, that is, the solutions of the mentioned equations are classical.

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Venue: DIM seminar room, Beauchef 851, 4th floor.

Monday, October 14th at 16:10 pm.

Zoom: <https://uchile.zoom.us/j/96642349167?pwd=MkRVbWxzOFBUUXICTWFicW0reWZ6dz09>

For further information, see our webpage: <https://eventos.cmm.uchile.cl/pdeseminar/>

