
VITALI VOUGALTER, University of Toronto

Solvability of some integro-differential equations with anomalous diffusion in higher dimensions

The work deals with the studies of the existence of solutions of an integro-differential equation in the case of the anomalous diffusion with the negative Laplace operator in a fractional power in R^d , $d = 4, 5$. The proof of the existence of solutions relies on a fixed point technique. Solvability conditions for non Fredholm elliptic operators in unbounded domains are used.