

Fractional Diffusion Equation and External Forces: Solutions in a Confined Region

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We investigate the \mathcal{N} -dimensional fractional diffusion equation with radial symmetry by taking time dependent boundary conditions and external forces into account in a confined region. A spatial and time dependence on the diffusion coefficient is also considered. The results obtained show an anomalous dispersion of the solutions and non-usual behaviour for the survival probability.

Key words: Diffusion Equation; Confined Geometry; Anomalous Diffusion.