

ASYMPTOTIC BEHAVIOUR OF A NONLOCAL FOKKER-PLANCK EQUATION

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We present a nonlocal Fokker-Planck model in which we can estimate the speed of convergence to equilibrium independent of the non-locality of the equation. This uniform estimate cannot be easily obtained with standard inequalities or entropy methods, but can be obtained through the use of Harris's theorem, finding interesting links to quantitative versions of the central limit theorem in probability. We also carry out a study of the properties of the stationary states of the problem, especially the behavior of its tails using the exponential generating functions.