# On the Parabolic Anderson Model With Moving Catalysts

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**Abstract**

We consider the parabolic Anderson model $\partial u/\partial t = \kappa\Delta u + \gamma\xi(t,x)u$ on $\mathbb{Z}^d$ with random reaction term $\xi(t,x) = \sum_k \delta\big(x - Y_k(t)\big)$ driven by an infinite system of moving catalysts $Y_k(t)$ in reversible equilibrium. Partial attention is paid to independent random walks and to exclusion dynamics. We investigate the behavior of the moment Lyapunov exponents of the solution $u$ as a function of the model parameters and compare it with the classical results by Carmona and Molchanov for white noise potentials.