
SDEs with distributional drift and Polymer measure

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Abstract

We study existence and uniqueness of solution for stochastic differential equations with distributional drift by giving a meaning to the Strook-Varadhan martingale problem associated to such equations. The approach we exploit is the one of paracontrolled distributions recently introduced by Gubinelli, Imkeller and Perkowski in their by now celebrated paper "Paracontrolled Distributions and Singular PDEs". As a result, we make sense of the two and three dimensional polymer measure. Joint work with Khalil Chouk

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