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*Stochastic Burgers equation*

**Abstract**

Models for interface growth have attracted much attention during the last two decades, in particular, these models have widespread application in many systems, such as film growth by vapor or chemical deposition, bacterial growth, evolution of forest fire fronts, etc. Phenomenological equations, selected according to symmetry principles and conservation laws, are often able to reproduce various experimental data. Among these phenomenological equations the Burgers' equation have been successful in describing properties of rough interfaces, turbulence and polymers in random media. In this work we introduce new concepts of solution for the stochastic Burgers equation, in particular, our approach encompasses the Cole-Hopf solution. The developments are based on regularization arguments from the theory of distributions.