

Abstract: "The KPZ equation: universality and well-posedness"

The KPZ equation is presumed to be a universal object describing random growing surfaces. Nevertheless, it is dramatically ill-posed and various attempts have been made to make sense of it. The Cole-Hopf solution proposed by Bertini and Giacomin was shown to be the physically correct one but it is unfortunately unable to fully capture such a universality. In this talk, after presenting some discrete models, we will give a brief introduction about the new notions of solution established in 2013 independently by Martin Hairer and Massimiliano Gubinelli.