ICTS Colloquium

Title : KPZ story

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Date : Monday, November 28, 2016

Time : 2:00 PM

Venue : Emmy Noether Seminar Room, ICTS Campus, Bangalore

Abstract : The celebrated KPZ equation (Kardar, Parisi, Zhang, 1986) is an important milestone in statistical physics, originally introduced to describe the late time dynamics in various growth models. Over the last 30 years, the KPZ story has evolved in various interesting directions, making links on the way to different areas of physics and mathematics. This includes in particular the link to the famous Tracy-Widom distribution in random matrix theory. The story of KPZ is a very successful one, involving theoretical physics, mathematics and experiments--a fertile playground for interdisciplinary science. In this talk, I will review the evolution of the KPZ story, pointing out the important landmarks as I go along. At the very end, I will discuss some recent developments concerning atypically large height fluctuations in KPZ growth models leading to a curious third order phase transition in these models.