

# Großes Physikalisches Kolloquium an der Universität zu Köln

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## *KPZ story*

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16<sup>45</sup> Uhr / HS III



The celebrated KPZ equation (Kardar, Parisi, Zhang, 1986) is an important milestone in statistical physics, originally introduced to describe the late time dynamics in two dimensional 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 establishing a nice link between the KPZ height fluctuations and the edge physics in cold atom systems.

