Department of Mathematics Seminar

Recent advances in the coupling approach to the KPZ fluctuations

By

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Abstract: The probabilistic coupling approach to study the Kardar-Parisi-Zhang (KPZ) fluctuations in stochastic planar models originated in the works of E. Cator and P. Groeneboom on Hammersley's process and the Poisson last-passage percolation (LPP) around 2005. It has since been developed to treat many aspects of the KPZ universality in various models of directed LPP, directed polymers and interacting particles. The purpose of this talk is to present some technical advances within the coupling framework, which are powered by a recently discovered connection to certain m.g.f. identities of E. Rains from 2000.

Based on (partly ongoing) joint works with N. Georgiou, C. Janjigian, J. Ortmann, T. Seppäläinen and Y. Xie.

Date: 9 November 2022, Wednesday
Time: 15:30
Place: Zoom

To request the event link, please send a message to kerimov@fen.bilkent.edu.tr