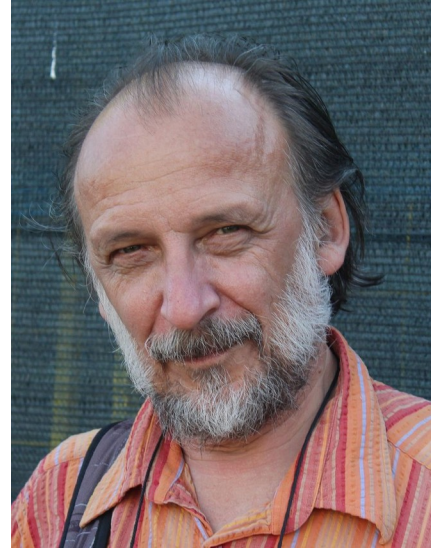


KPZ universality class, random matrices and replica trick

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These lectures are devoted to the detailed consideration of the methods and ideas used in the studies of the universal statistical properties of random one-dimensional directed polymers.

In particular, it is demonstrated how using replica Bethe ansatz technique several exact results for different types of the universal probability distribution functions can be derived. Besides, some problems, which are still waiting for their solutions, are discussed.

V. Dotsenko, *Introduction to the Replica Theory of Disordered Statistical Systems* (Cambridge University Press, Cambridge, 2008)

V. Dotsenko, *arXiv:1703.04305 (2017)*.