

1-dependent first passage percolation

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Abstract

We introduce the concept of one-dependent FPP, where the passage time across an edge depends – in a product form – essentially on the degrees of the two endpoints of the edge and/or the spatial distance. We study the process on spatial random graphs with various underlying ball growth, and identify four possible universality classes. Joint with Zsolt Bartha, John Lapinskas, Johannes Lengler, Ulysse Schaller, Rick Reubsaet.