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Mathematics > Probability The Phase Transition for Dyadic Tilings		5	Download:PDFPostScriptOther formats	
Omer Angel, Alexander E. Holroyd, Gady Kozma, Johan Wästlund, Peter Winkle (Submitted on 13 Jul 2011 (v1), last revised 20 Jul 2012 (this version, v3)) A dyadic tile of order n is any rectangle obtained from the unit square by n successive bisections horizontal or vertical cuts. Let each dyadic tile of order n be available with probability p, independently of the others. We prove that for p sufficiently close to 1, there exists a set of pairwis disjoint available tiles whose union is the unit square, with probability tending to 1 as n->infinity, as conjectured by Joel Spencer in 1999. In particular we prove that if p=7/8, such a tiling exists with probability at least 1-(3/4)^n. The proof involves a surprisingly delicate counting argument for sets unavailable tiles that prevent tiling.		tions by pairwise hity, as	Current browse cont math.PR < prev next > new recent 1107 Change to browse b math math.CO	
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