

## On Long Range Percolation with Heavy Tails

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### Abstract

Consider independent long range percolation on  $\mathbf{Z}^d$ ,  $d \geq 2$ , where edges of length  $n$  are open with probability  $p_n$ . We show that if  $\limsup_{n \rightarrow \infty} p_n > 0$ , then there exists an integer  $N$  such that  $P_N(0 \leftrightarrow \infty) > 0$ , where  $P_N$  is the truncated measure obtained by taking  $p_{\{N, n\}} = p_n$  for  $n \leq N$  and  $p_{\{N, n\}} = 0$  for all  $n > N$ .

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