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Limit distribution for long-range oriented percolation

In this talk, I would like to introduce long-range oriented percolation with index $\alpha > 0$ and present the Fourier transform of the properly-scaled normalized two-point function converges to $e^{-C|k|^{\alpha \wedge 2}}$ for some $C \in (0, \infty)$ above the upper-critical dimension $d_c \equiv 2(\alpha \wedge 2)$. Moreover, the constant C exhibits crossover at $\alpha = 2$, which is a result of interactions among occupied paths.