Incest and infanticide: a branching process with deletions and mergers that matches the threshold for hypercube percolation

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We define a graph process based on a discrete branching process with deletions and mergers, which is inspired by the 4-cycle structure of the hypercube $\mathcal{Q}_d$ for large d. We prove survival and extinction under certain conditions on p and q that heuristically match the known expansions of the critical probabilities for bond percolation on the hypercube.
Joint work with Laura Eslava and Sarah Penington.
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