

A VARIANT OF THE ERDŐS-RÉNYI RANDOM GRAPH PROCESS

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We consider a natural variant of the Erdős-Rényi random graph process in which k vertices are special and are never put into the same connected component. The model is natural and interesting on its own, but is actually inspired by the combinatorial data fusion problem that itself is connected to a number of important problems in graph theory. We will show that a phase transition occurs when the number of special vertices is roughly $n^{1/3}$, where n is the number of vertices.