

The Emergence of a Giant Component

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The use graphs is a simple way to represent real networks. In this work we study basic results in the emergence of a giant component in the Erdős-Rényi random graph $\mathcal{G}(n, p)$ taking Hofstad(2016) as a basis. We present a random walk formulation of branching processes. Then, we prove theorems that allow us to relate some branching processes' results to the size of the components of a Erdős-Rényi random graph model. This is an undergraduate research funded by FAPESP and supervised by Prof. Pablo Martín Rodríguez.

References

- [1] R. VAN DER HOFSTAD. *Random Graphs and Complex Networks*. Volume 1, 2016. Disponível em: <<http://www.win.tue.nl/~rhofstad/NotesRGCN.html>>. Acesso em: 28 out. 2016.