Talk 6: Maximal degree in preferential attachment trees

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Reference material

[vdH]: Section 8.7

Goal

The goal is to study the maximal degree in trees built by preferential attachment using martingale arguments.

Content

- Limit theorem for the maximal degree (Theorem 8.14, in the case $m = 1$ and $\delta = 0$, proved in Sec. 8.7)

  UPDATE (14/03): actually the model defined in [vdH] is a bit different than in [Roc] (self-loops are allowed), see Section 4.3 in [Dur07] for an alternative reference.

References

[Dur07] Richard Durrett. *Random graph dynamics*, volume 200. Citeseer, https://services.math.duke.edu/~rtd/RGD/RGD.pdf, 2007.

[Roc] Sébastien Roch. Modern discrete probability an essential toolkit. https://people.math.wisc.edu/~roch/mdp/roch-mdp-full.pdf.

[vdH] Remco van der Hofstad. Random graphs and complex networks. https://www.win.tue.nl/~rhofstad/NotesRGCN.pdf.