The Problem of Action at a Distance in Networks and the Emergence of Preferential Attachment from Triadic Closure

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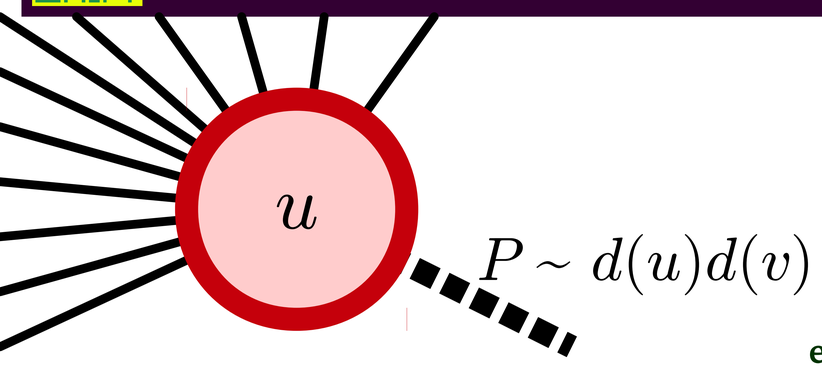
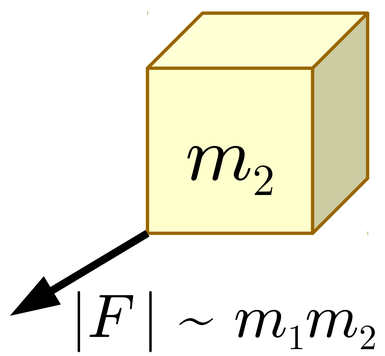


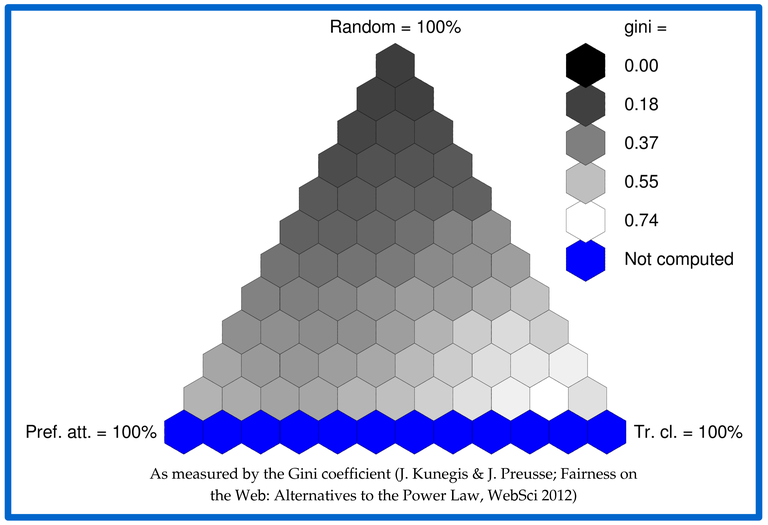
Rough Analogy

Physics	Networks
mass	degree
force	edge probability
Newton's law	preferential attachment
general relativity	triangle closing

emerges from (Physics) ↔ emerges from (Networks)

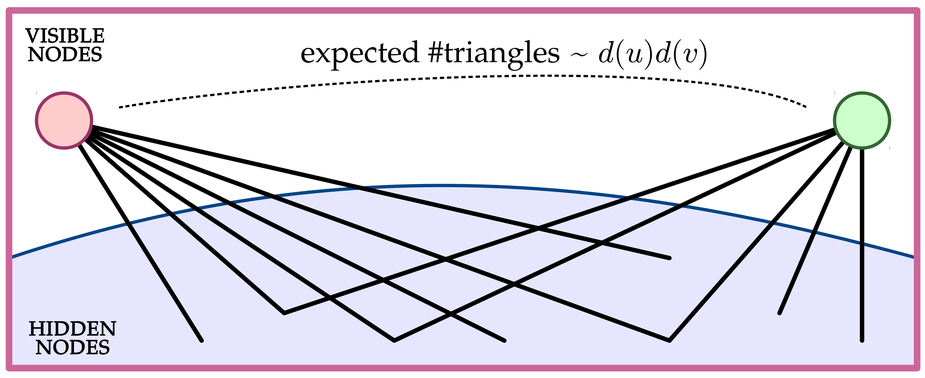


Skewness of Preferential Attachment vs Triangle Closing

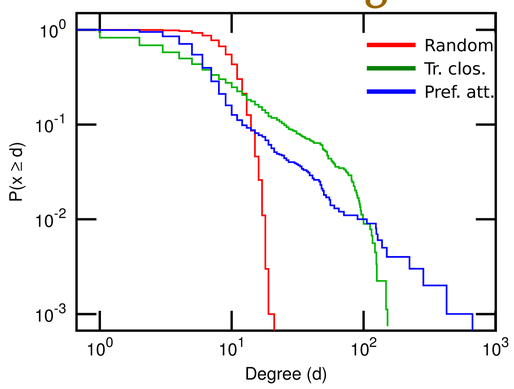


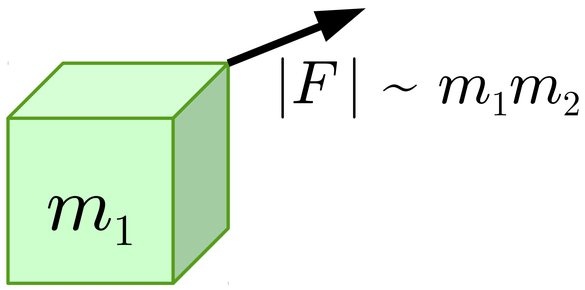
Preferential attachment is like « action at a distance ». How can it be explained?

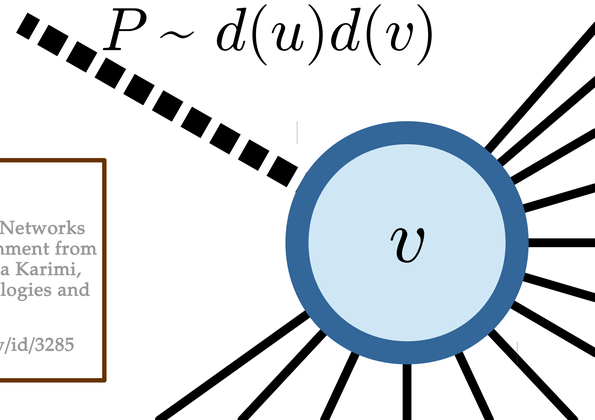
Argument by Hidden Triangles



Degree Distribution of Preferential Attachment vs Triangle Closing







Learn more:

The Problem of Action at a Distance in Networks and the Emergence of Preferential Attachment from Triadic Closure; Jérôme Kunegis, Fariba Karimi, Jun Sun; J. of Interdisciplinary Methodologies and Issues in Science 2, 2017.

http://jimis.episciences.org/paper/view/id/3285