Graphs in Machine Learning
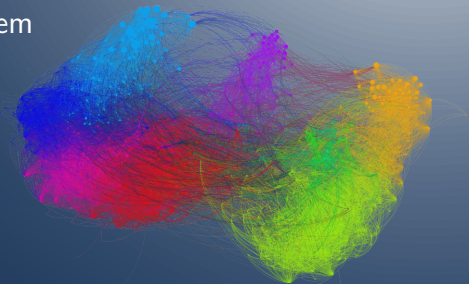
Google PageRank: Core Algorithm

Steady State and Perron's Theorem

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Partially based on material by: Andreas Krause,
Branislav Kveton, Michael Kearns

Success story #2 Google `PageRank`

Google matrix: $\mathbf{G} = (1-p)\mathbf{M} + p \cdot \frac{1}{N}\mathbb{1}_{N \times N}$, where $p = 0.15$

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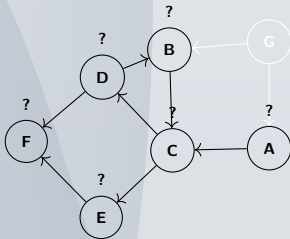**Google matrix:** $\mathbf{G} = (1-p)\mathbf{M} + p \cdot \frac{1}{N}\mathbb{1}_{N \times N}$, where $p = 0.15$

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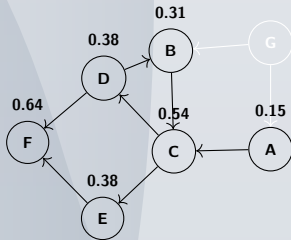**Perron's theorem:** Such v exists and it is **unique**
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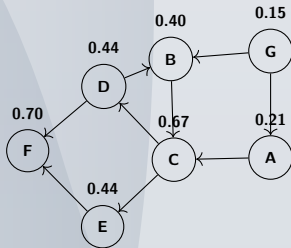
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https://misovalko.github.io/mva-ml-graphs.html