

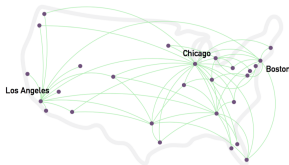
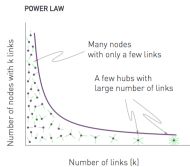
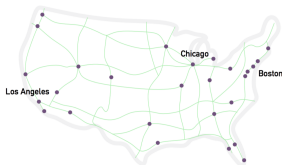
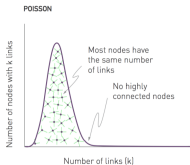
# *real networks* models

introduction to *network analysis in Python* (*NetPy*)

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10th Dec 2019

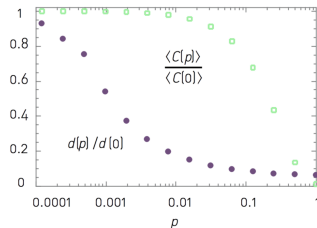
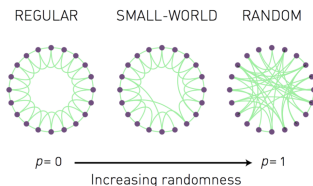
# networks *scale-free*

- *power-law* degree distribution  $p_k \sim k^{-\gamma}$  [Pri65]
- *preferential attachment scale-free* model [BA99]



# networks *small-world*

- *coexistence* of  $\langle C \rangle \gg 0$  and  $\langle d \rangle \simeq \frac{\ln n}{\ln \langle k \rangle}$
- *link rewiring small-world* model [WS98]



# networks *references*



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Collective dynamics of 'small-world' networks.  
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