

References

Complex Networks, Course 303A, Spring, 2009

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Outline

References

References

References

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References I



[1] L. Adamic, R. Lukose, A. Puniyani, and B. Huberman.

Search in power-law networks.

Phys. Rev. E, 64:046135, 2001. [pdf](#) (田)



[2] R. Albert, H. Jeong, and A.-L. Barabási.

Error and attack tolerance of complex networks.

Nature, 406:378–382, July 2000. [pdf](#) (田)



[3] J. R. Banavar, F. Colaiori, A. Flammini, A. Maritan, and A. Rinaldo.

Topology of the fittest transportation network.

Phys. Rev. Lett., 84:4745–4748, 2000. [pdf](#) (田)



[4] J. R. Banavar, A. Maritan, and A. Rinaldo.

Size and form in efficient transportation networks.

Nature, 399:130–132, 1999. [pdf](#) (田)



[5] A.-L. Barabási and R. Albert.

Emergence of scaling in random networks.

Science, 286:509–511, 1999. [pdf](#) (田)



[6] F. Bass.

A new product growth model for consumer durables.

Manage. Sci., 15:215–227, 1969. [pdf](#) (田)











[7] A. Bejan.

Shape and Structure, from Engineering to Nature.

Cambridge Univ. Press, Cambridge, UK, 2000.

References II

-  [8] S. Bikhchandani, D. Hirshleifer, and I. Welch.
A theory of fads, fashion, custom, and cultural change as informational cascades.
J. Polit. Econ., 100:992–1026, 1992.
-  [9] S. Bikhchandani, D. Hirshleifer, and I. Welch.
Learning from the behavior of others: Conformity, fads, and informational cascades.
J. Econ. Perspect., 12(3):151–170, 1998. [pdf](#) (田)
-  [10] P. M. Blau and J. E. Schwartz.
Crosscutting Social Circles.
Academic Press, Orlando, FL, 1984.
-  [11] S. Bornholdt and H. G. Schuster, editors.
Handbook of Graphs and Networks.
Wiley-VCH, Berlin, 2003.
-  [12] R. L. Breiger.
The duality of persons and groups.
Social Forces, 53(2):181–190, 1974.
-  [13] D. Brockmann, L. Hufnagel, and T. Geisel.
The scaling laws of human travel.
Nature, pages 462–465, 2006.
-  [14] J. Carlson and J. Doyle.
Highly optimized tolerance: A mechanism for power laws in design systems.
Phys. Rev. Lett., 60(2):1412–1427, 1999. [pdf](#) (田)
-  [15] J. Carlson and J. Doyle.
Highly optimized tolerance: Robustness and design in complex systems.
Phys. Rev. Lett., 84(11):2529–2532, 2000. [pdf](#) (田)

References III



[16] E. Castronova.
Synthetic Worlds: The Business and Culture of Online Games.
University of Chicago Press, Chicago, IL, 2005.



[17] A. Clauset, C. Moore, and M. E. J. Newman.
Structural inference of hierarchies in networks, 2006. [pdf](#) (田)



[18] D. J. Daley and D. G. Kendall.
Epidemics and rumours.
Nature, 204:1118, 1964.



[19] D. J. Daley and D. G. Kendall.
Stochastic rumours.
J. Inst. Math. Appl., 1:42–55, 1965.



[20] H. de Vries, T. Becker, and B. Eckhardt.
Power law distribution of discharge in ideal networks.
Water Resources Research, 30(12):3541–3543, December 1994.



[21] P. S. Dodds, R. Muhamad, and D. J. Watts.
An experimental study of search in global social networks.
Science, 301:827–829, 2003. [pdf](#) (田)



[22] P. S. Dodds and D. H. Rothman.
Unified view of scaling laws for river networks.
Physical Review E, 59(5):4865–4877, 1999. [pdf](#) (田)



[23] P. S. Dodds and D. H. Rothman.
Geometry of river networks. II. Distributions of component size and number.
Physical Review E, 63(1):016116, 2001. [pdf](#) (田)

References IV



[24] P. S. Dodds and D. H. Rothman.
Geometry of river networks. III. Characterization of component connectivity.
Physical Review E, 63(1):016117, 2001. [pdf](#) (田)



[25] P. S. Dodds, D. H. Rothman, and J. S. Weitz.
Re-examination of the “3/4-law” of metabolism.
Journal of Theoretical Biology, 209(1):9–27, March 2001.
. [pdf](#) (田)



[26] P. S. Dodds and D. J. Watts.
Universal behavior in a generalized model of contagion.
Phys. Rev. Lett., 92:218701, 2004. [pdf](#) (田)



[27] P. S. Dodds and D. J. Watts.
A generalized model of social and biological contagion.
J. Theor. Biol., 232:587–604, 2005. [pdf](#) (田)



[28] S. N. Dorogovtsev and J. F. F. Mendes.
Evolution of Networks.
Oxford University Press, Oxford, UK, 2003.



[29] B. Efron and C. Stein.
The jackknife estimate of variance.
The Annals of Statistics, 9:586–596, 1981. [pdf](#) (田)



[30] R. Ferrer i Cancho and R. Solé.
The small world of human language.
Proc. R. Soc. Lond. B, 26:2261–2265, 2001. [pdf](#) (田)

References V



[31] M. T. Gastner and M. E. J. Newman.
Diffusion-based method for producing density-equalizing maps.
Proc. Natl. Acad. Sci., 101:7499–7504, 2004. [pdf](#) (田)



[32] M. T. Gastner and M. E. J. Newman.
Optimal design of spatial distribution networks.
Phys. Rev. E, 74:Article # 016117, 2006. [pdf](#) (田)



[33] M. T. Gastner and M. E. J. Newman.
Shape and efficiency in spatial distribution networks.
J. Stat. Mech.: Theor. & Exp., 1:01015–, 2006. [pdf](#) (田)



[34] M. Gladwell.
The Tipping Point.
Little, Brown and Company, New York, 2000.



[35] J. P. Gleeson.
Cascades on correlated and modular random networks.
Phys. Rev. E, 77:046117, 2008. [pdf](#) (田)



[36] J. P. Gleeson and D. J. Cahalane.
Seed size strongly affects cascades on random networks.
Phys. Rev. E, 75:056103, 2007. [pdf](#) (田)



[37] W. Goffman and V. A. Newill.
Generalization of epidemic theory: An application to the transmission of ideas.
Nature, 204:225–228, 1964.



[38] N. Goldenfeld.
Lectures on Phase Transitions and the Renormalization Group, volume 85 of *Frontiers in Physics*.
Addison-Wesley, Reading, Massachusetts, 1992.

References VI



[39] M. C. González, C. A. Hidalgo, and A.-L. Barabási.
Understanding individual human mobility patterns.
Nature, 453:779–782, 2008. [pdf](#) (田)



[40] M. Granovetter.
Threshold models of collective behavior.
Am. J. Sociol., 83(6):1420–1443, 1978. [pdf](#) (田)



[41] J. T. Hack.
Studies of longitudinal stream profiles in Virginia and Maryland.
United States Geological Survey Professional Paper, 294-B:45–97, 1957.



[42] C. A. Hidalgo, B. Klinger, A.-L. Barabási, and R. Hausman.
The product space conditions the development of nations.
Science, 317:482–487, 2007. [pdf](#) (田)



[43] R. E. Horton.
Erosional development of streams and their drainage basins; hydrophysical approach to quantitative morphology.
Bulletin of the Geological Society of America, 56(3):275–370, 1945.



[44] S. Kauffman.
The Origins of Order.
Oxford, 1993.



[45] M. Kearns, S. Suri, and N. Montfort.
An experimental study of the coloring problem on human subject networks.
Science, 313:824–827, 2006. [pdf](#) (田)

References VII



[46] W. O. Kermack and A. G. McKendrick.

A contribution to the mathematical theory of epidemics.
Proc. R. Soc. Lond. A, 115:700–721, 1927. [pdf](#) (田)



[47] W. O. Kermack and A. G. McKendrick.

A contribution to the mathematical theory of epidemics. III. Further studies of the problem of endemicity.
Proc. R. Soc. Lond. A, 141(843):94–122, 1927. [pdf](#) (田)



[48] W. O. Kermack and A. G. McKendrick.

Contributions to the mathematical theory of epidemics. II. The problem of endemicity.
Proc. R. Soc. Lond. A, 138(834):55–83, 1927. [pdf](#) (田)



[49] J. W. Kirchner.

Statistical inevitability of Horton's laws and the apparent randomness of stream channel networks.
Geology, 21:591–594, July 1993.



[50] M. Kleiber.

The Fire of Life. An Introduction to Animal Energetics.
Wiley, New York, 1961.



[51] J. Kleinberg.

Navigation in a small world.
Nature, 406:845, 2000. [pdf](#) (田)



[52] J. M. Kleinberg.

Authoritative sources in a hyperlinked environment.
Proc. 9th ACM-SIAM Symposium on Discrete Algorithms, 1998. [pdf](#) (田)

References VIII



[53] P. L. Krapivsky and S. Redner.
Organization of growing random networks.
Phys. Rev. E, 63:066123, 2001. [pdf](#) (田)



[54] M. Kretzschmar and M. Morris.
Measures of concurrency in networks and the spread of infectious disease.
Math. Biosci., 133:165–95, 1996.



[55] L. B. Leopold.
A View of the River.
Harvard University Press, Cambridge, MA, 1994.



[56] K. Y. Lin.
An elementary proof of the perron-frobenius theorem for non-negative symmetric matrices.
Chinese Journal of Physics, 15:283–285, 1977. [pdf](#) (田)



[57] A. J. Lotka.
The frequency distribution of scientific productivity.
Journal of the Washington Academy of Science, 16:317–323, 1926.



[58] B. B. Mandelbrot.
An informational theory of the statistical structure of languages.
In W. Jackson, editor, *Communication Theory*, pages 486–502. Butterworth, Woburn, MA, 1953.



[59] A. Maritan, F. Colaiori, A. Flammini, M. Cieplak, and J. R. Banavar.
Universality classes of optimal channel networks.
Science, 272:984–986, 1996. [pdf](#) (田)



[60] R. Milo, N. Kashtan, S. Itzkovitz, M. E. J. Newman, and U. Alon.
On the uniform generation of random graphs with prescribed degree sequences, 2003. [pdf](#) (田)

References IX



[61] C. D. Murray.

The physiological principle of minimum work. I. The vascular system and the cost of blood volume.

Proc. Natl. Acad. Sci. U.S.A., 12:207–214, 1926.



[62] J. D. Murray.

Mathematical Biology.

Springer, New York, Third edition, 2002.



[63] M. Newman.

Assortative mixing in networks.

Phys. Rev. Lett., 89:208701, 2002. [pdf](#) (田)



[64] M. E. J. Newman.

Mixing patterns in networks.

Phys. Rev. E, 67:026126, 2003. [pdf](#) (田)



[65] M. E. J. Newman.

The structure and function of complex networks.

SIAM Review, 45(2):167–256, 2003. [pdf](#) (田)



[66] F. Ninio.

A simple proof of the Perron-Frobenius theorem for positive symmetric matrices.

J. Phys. A.: Math. Gen., 9:1281–1282, 1976. [pdf](#) (田)











[67] M. A. Nowak.

Five rules for the evolution of cooperation.

Science, 314:1560–1563, 2006. [pdf](#) (田)

References X

-  [68] S. D. Peckham.
New results for self-similar trees with applications to river networks.
Water Resources Research, 31(4):1023–1029, April 1995.
-  [69] D. J. d. S. Price.
Networks of scientific papers.
Science, 149:510–515, 1965. [pdf](#) (田)
-  [70] D. J. d. S. Price.
A general theory of bibliometric and other cumulative advantage processes.
J. Amer. Soc. Inform. Sci., 27:292–306, 1976.
-  [71] I. Rodríguez-Iturbe and A. Rinaldo.
Fractal River Basins: Chance and Self-Organization.
Cambridge University Press, Cambridge, UK, 1997.
-  [72] A. E. Scheidegger.
A stochastic model for drainage patterns into an intramontane trench.
Bull. Int. Assoc. Sci. Hydrol., 12(1):15–20, 1967.
-  [73] A. E. Scheidegger.
Theoretical Geomorphology.
Springer-Verlag, New York, third edition, 1991.
-  [74] T. Schelling.
Dynamic models of segregation.
J. Math. Sociol., 1:143–186, 1971.
-  [75] T. C. Schelling.
Hockey helmets, concealed weapons, and daylight saving: A study of binary choices with externalities.
J. Conflict Resolut., 17:381–428, 1973.

References XI



[76] T. C. Schelling.
Micromotives and Macrobehavior.
Norton, New York, 1978.



[77] S. A. Schumm.
Evolution of drainage systems and slopes in badlands at Perth Amboy, New Jersey.
Bulletin of the Geological Society of America, 67:597–646, May 1956.



[78] Y. Sheffi.
Urban Transportation Networks: Equilibrium Analysis with Mathematical Programming Methods.
Prentice-Hall, Englewood Cliffs, New Jersey, 1985. [pdf](#) (田)



[79] S. S. Shen-Orr, R. Milo, S. Mangan, and U. Alon.
Network motifs in the transcriptional regulation network of *Escherichia coli*.
Nature Genetics, pages 64–68, 2002. [pdf](#) (田)



[80] R. L. Shreve.
Infinite topologically random channel networks.
Journal of Geology, 75:178–186, 1967.



[81] G. Simmel.
The number of members as determining the sociological form of the group. I.
American Journal of Sociology, 8:1–46, 1902.











[82] H. A. Simon.
On a class of skew distribution functions.
Biometrika, 42:425–440, 1955. [pdf](#) (田)



[83] C. Song, S. Havlin, and H. A. Makse.
Self-similarity of complex networks.
Nature, 433:392–395, 2005. [pdf](#) (田)

References XII

-  [84] C. Song, S. Havlin, and H. A. Makse.
Origins of fractality in the growth of complex networks.
Nature Physics, 2:275–281, 2006. [pdf](#) (田)
-  [85] D. Sornette.
Critical Phenomena in Natural Sciences.
Springer-Verlag, Berlin, 2nd edition, 2003.
-  [86] W. R. Stahl.
Scaling of respiratory variables in mammals.
Journal of Applied Physiology, 22:453–460, 1967.
-  [87] G. E. Stephan.
Territorial division: The least-time constraint behind the formation of subnational boundaries.
Science, 196:523–524, 1977. [pdf](#) (田)
-  [88] G. E. Stephan.
Territorial subdivision.
Social Forces, 63:145–159, 1984. [pdf](#) (田)
-  [89] A. N. Strahler.
Hypsometric (area altitude) analysis of erosional topography.
Bulletin of the Geological Society of America, 63:1117–1142, 1952.
-  [90] S. H. Strogatz.
Nonlinear Dynamics and Chaos.
Addison Wesley, Reading, Massachusetts, 1994.
-  [91] S. H. Strogatz.
Romanesque networks.
Nature, 433:365–366, 2005. [pdf](#) (田)

References XIII



[92] H. Takayasu.

Steady-state distribution of generalized aggregation system with injection.
Physical Review Letters, 63(23):2563–2565, December 1989.



[93] H. Takayasu, I. Nishikawa, and H. Tasaki.

Power-law mass distribution of aggregation systems with injection.
Physical Review A, 37(8):3110–3117, April 1988.



[94] M. Takayasu and H. Takayasu.

Apparent independency of an aggregation system with injection.
Physical Review A, 39(8):4345–4347, April 1989.



[95] D. G. Tarboton, R. L. Bras, and I. Rodríguez-Iturbe.

Comment on “On the fractal dimension of stream networks” by Paolo La Barbera and Renzo Rosso.
Water Resources Research, 26(9):2243–4, September 1990.



[96] E. Tokunaga.

The composition of drainage network in Toyohira River Basin and the valuation of Horton's first law.
Geophysical Bulletin of Hokkaido University, 15:1–19, 1966.



[97] E. Tokunaga.

Consideration on the composition of drainage networks and their evolution.
Geographical Reports of Tokyo Metropolitan University, 13:G1–27, 1978.



[98] E. Tokunaga.

Ordering of divide segments and law of divide segment numbers.
Transactions of the Japanese Geomorphological Union, 5(2):71–77, 1984.

References XIV



[99] J. Travers and S. Milgram.
An experimental study of the small world problem.
Sociometry, 32:425–443, 1969. [pdf](#) (田)



[100] D. L. Turcotte, J. D. Pelletier, and W. I. Newman.
Networks with side branching in biology.
Journal of Theoretical Biology, 193:577–592, 1998.



[101] F. Vega-Redondo.
Complex Social Networks.
Cambridge University Press, 2007.



[102] S. Wasserman and K. Faust.
Social Network Analysis: Methods and Applications.
Cambridge University Press, Cambridge, UK, 1994.



[103] D. J. Watts.
A simple model of global cascades on random networks.
Proc. Natl. Acad. Sci., 99(9):5766–5771, 2002. [pdf](#) (田)








[104] D. J. Watts.
Six Degrees.
Norton, New York, 2003.



[105] D. J. Watts, P. S. Dodds, and M. E. J. Newman.
Identity and search in social networks.
Science, 296:1302–1305, 2002. [pdf](#) (田)



[106] D. J. Watts and S. J. Strogatz.
Collective dynamics of 'small-world' networks.
Nature, 393:440–442, 1998. [pdf](#) (田)

-  [107] P. D. Weinberg and C. R. Ethier.
Twenty-fold difference in hemodynamic wall shear stress between murine and human aortas.
Journal of Biomechanics, 40(7):1594–1598, 2007. [pdf](#) (田)
-  [108] G. B. West, J. H. Brown, and B. J. Enquist.
A general model for the origin of allometric scaling laws in biology.
Science, 276:122–126, 1997. [pdf](#) (田)
-  [109] H. S. Wilf.
Generatingfunctionology.
A K Peters, Natick, MA, 3rd edition, 2006. [pdf](#) (田)
-  [110] G. U. Yule.
A mathematical theory of evolution, based on the conclusions of Dr J. C. Willis, F.R.S.
Phil. Trans. B, 213:21–, 1924.
-  [111] G. K. Zipf.
Human Behaviour and the Principle of Least-Effort.
Addison-Wesley, Cambridge, MA, 1949.