

Rumour-spreading and first passage percolation

A. Sudbury, 1985, The Proportion of the Population Never Hearing a Rumour, *Journal of Applied Probability*, 22: 443-446.

D. Mosk-Aoyama and D. Shah, 2006, Computing separable functions via gossip. In *Proc. 25th annual ACM symposium on Principles of distributed computing (PODC '06)*: 113-122.

D. Shah and T. Zaman, 2011, Rumors in a network: who's the culprit?, *IEEE Transactions on Information Theory*, 57: 5163-5181.

N. Fountoulakis, K. Panagiotou and T. Sauerwald, 2012, Ultra-fast rumor spreading in social networks, *Proc. ACM-SIAM Symp. On Discrete Algo. (SODA)*.

S. Bhamidi and R. van der Hofstad, 2012, Weak disorder asymptotics in the stochastic mean-field model of distance, *Annals of Applied Probability*, 22: 29-69.

M. Eckhoff, J. Goodman, R. van der Hofstad and F. Nardi, 2013, Short paths for first passage percolation on the complete graph, *Journal of Statistical Physics* 151: 1056-1088.

H. Amini, M. Draief and M. Lelarge, 2013, Flooding in weighted sparse random graphs, *SIAM Journal of Discrete Mathematics*, 27: 1-26.

G. Giakkoupis, T. Sauerwald and A. Stauffer, 2014, Randomized rumor spreading in dynamic graphs, *Proc. ICALP*.

J. Khim and P. Loh, 2016, Confidence sets for the source of a diffusion in regular trees. *IEEE Transactions on Network Science and Engineering* 4: 27-40.

M. Deijfen and R. van der Hofstad, 2016, The winner takes it all, *Annals of Applied Probability*, 26: 2419-2453.

Consensus and averaging: voter model and variants

D. Acemoglu, A. Nedic and A. Ozdaglar, 2008, Convergence of rule-of-thumb learning rules in social networks, *Proc. 47th IEEE Conference on Decision and Control*, CDC 2008.

F. Fagnani and S. Zampieri, 2008. Randomized consensus algorithms over large-scale networks. *IEEE Journal on Selected Areas in Communications*, 26: 634 – 649.

Perron, E., Vasudevan, D., & Vojnovic, M, 2009. Using three states for binary consensus on complete graphs. In *Proc. IEEE INFOCOM*.

Yildiz, M. E., Pagliari, R., Ozdaglar, A., & Scaglione, A., 2010, Voting models in random networks, *Information Theory and Applications Workshop*.

Bénézit, F., Dimakis, A.G., Thiran, P., Vetterli, M., 2010. Order-Optimal Consensus Through Randomized Path Averaging. *IEEE Trans. Info. Theory*, 56: 5150 – 5167.

C. Cooper, R. Elsasser, H. Ono and T. Radzik, 2012, Coalescing random walks and voting on graphs, in *Proc. ACM Symp. Principles of Distributed Computing*.

Random walks, epidemics, bootstrap percolation, influence models

U. Feige, 1995, A tight upper bound on the cover time for random walks on graphs, *Random Structures and Algorithms*, 6: 51-54.

D. Kempe, J. Kleinberg and E. Tardos, 2003, Maximizing the spread of influence through a social network, *Proceedings ACM SIGKDD*

A. Ganesh, L. Massoulie and D. Towsley, 2005, The effect of network topology on the spread of epidemics, *Proceedings IEEE Infocom*.

S. Janson, T. Luczak, T. Turova and T. Vallier, 2012, Bootstrap percolation on the random graph $G(n,p)$, *Annals of Applied Probability*, 22:1989-2047.

T. Mountford, D. Valesin and Q. Yao, 2013, Metatable densities for the contact process on power law random graphs, *Electronic Journal of Probability*.

C. Dutta, G. Pandurangan, R. Rajaraman and S. Roche, 2015, Coalescing-branching random walks on graphs, *ACM Trans. Parallel Computing*.

Community detection and graph partitioning

A. Coja-Oghlan, 2010, Graph partitioning via adaptive spectral techniques, *Combinatorics, Probability and Computing*, 19: 227-284.

M. E. J. Newman, Spectral methods for community detection and graph partitioning, *Phys. Rev. E*, 88(4), 2013.

E. Mossel, J. Neeman and A. Sly, Stochastic Block Models and Reconstruction, <http://arxiv.org/abs/1202.1499>.

L. Massoulie, Community Detection Thresholds and the Weak Ramanujan Property, *Proceedings ACM Symposium on Theory of Computing (STOC)*, 2014.

E. Abbe, A. Bandeira and G. Hall, 2016, Exact recovery in the stochastic block model, *IEEE Transactions on Information Theory*, 62: 471-487

