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# Percolation Theory and Network Connectivity

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# Papers

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- Geoffrey Grimmett, **Percolation**, first chapter, Second edition, Springer, 1999.
- Massimo Franceschetti, Lorna Booth, Matthew Cook, Ronald Meester, and Jehoshua Bruck, [Continuum percolation with unreliable and spread out connections](#), Journal of Statistical Physics, v. 118, N. 3-4, February 2005, pp. 721-734.

# On a rainy day

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- Observe the raindrops falling on the pavement. Initially the wet regions are isolated and we can find a dry path. Then after some point, the wet regions are connected and we can find a wet path.
- There is a critical density where sudden change happens.

