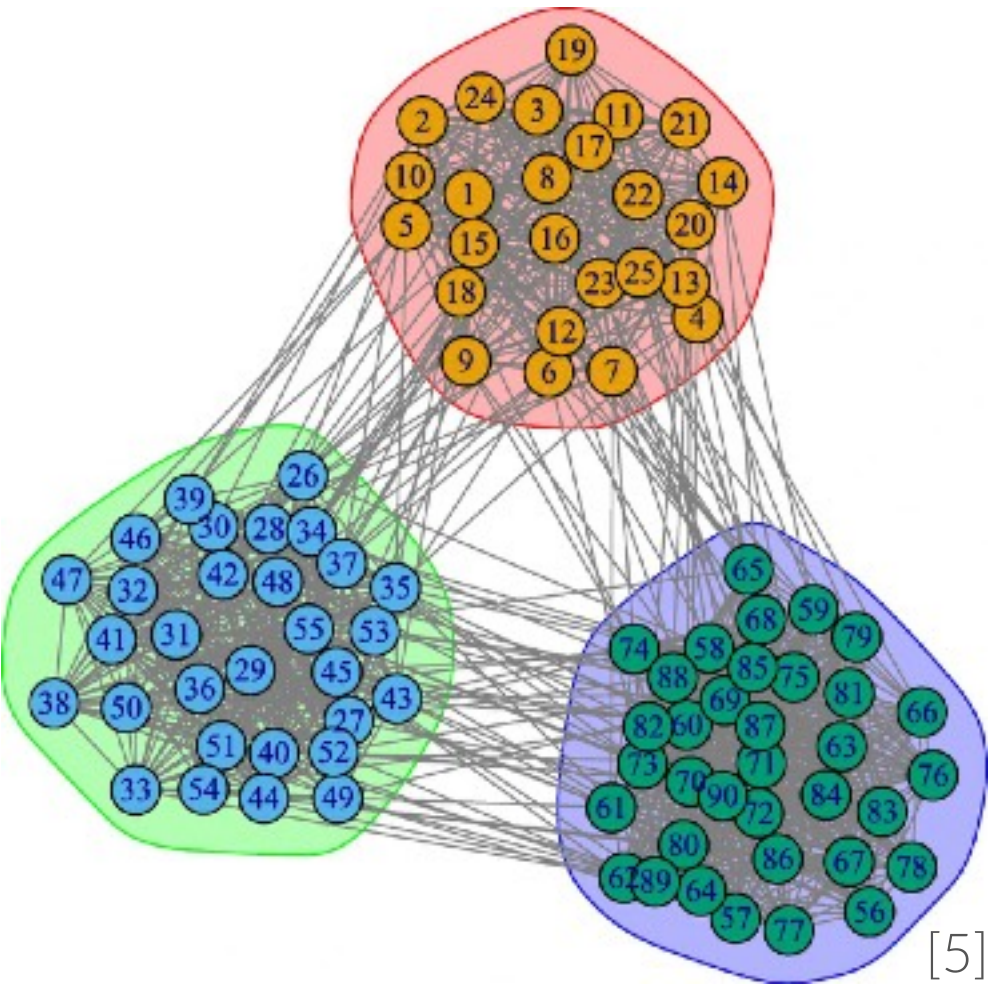
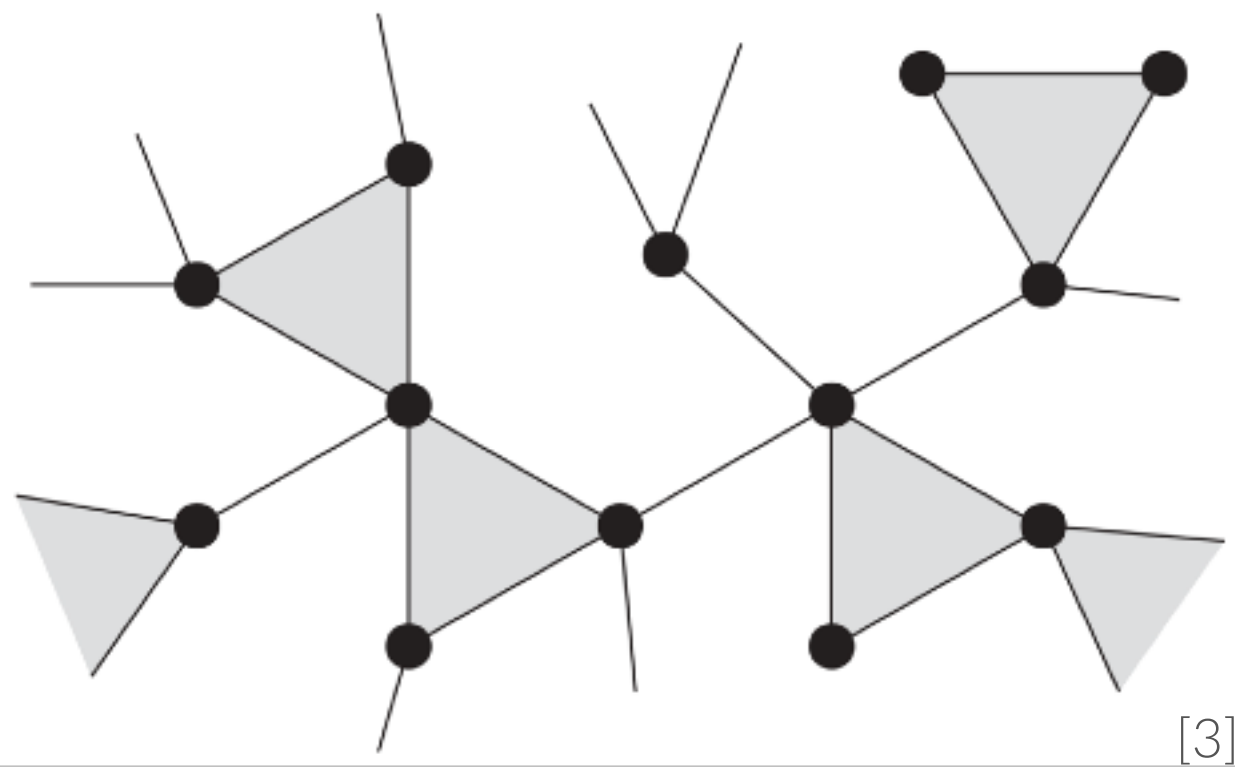
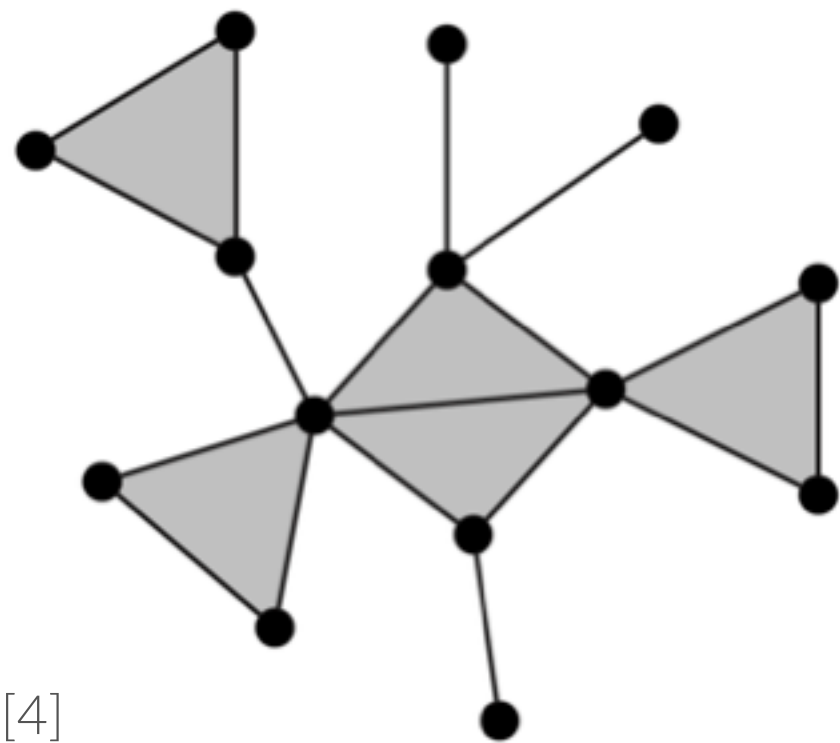
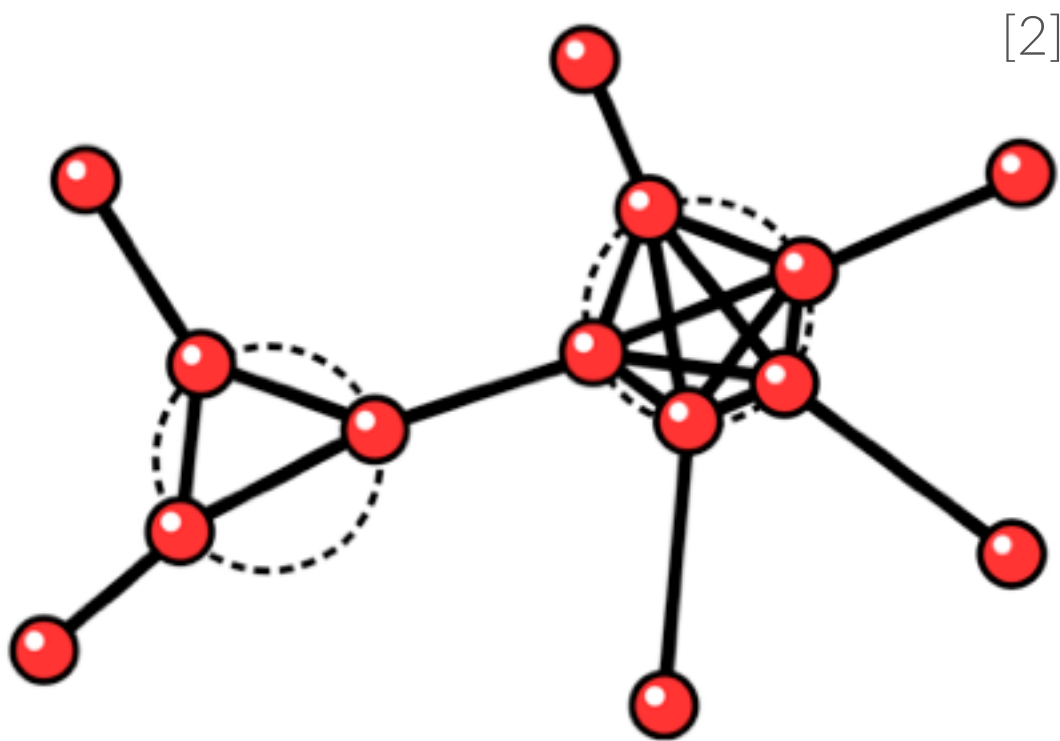
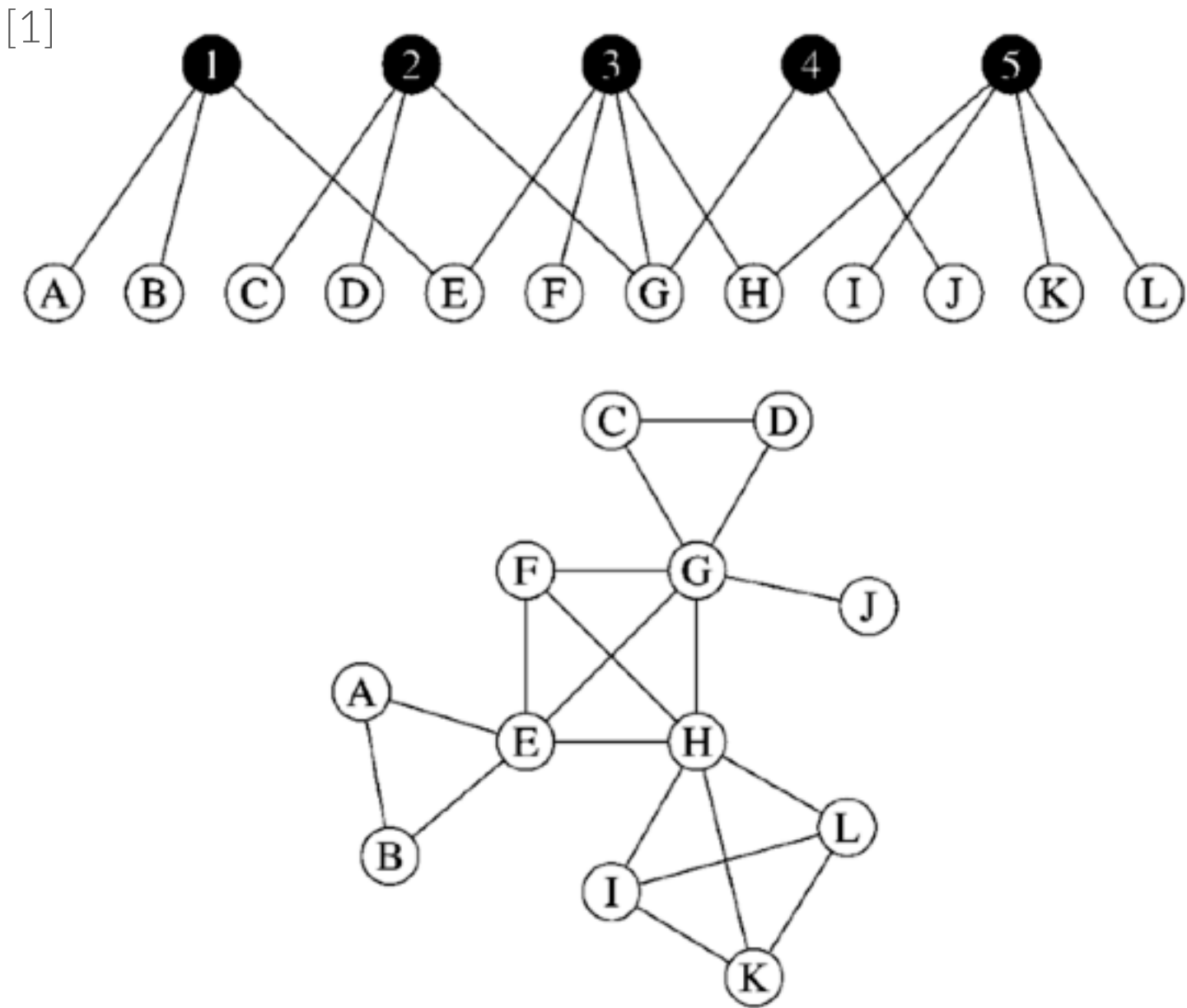


Modeling clustering

Trickier because clustering consists in **three-node interactions** while our mathematical tools rely on **pairwise interactions** either explicitly or implicitly.

Most models therefore assume

- ▷ an **underlying tree-like** structure
- ▷ that the networks are **dense**



[1] Phys. Rev. E 68, 026121 (2003)
[2] Phys. Rev. E 80, 036107 (2009)
[3] Phys. Rev. Lett. 103, 058701 (2009)
[4] Phys. Rev. E 82, 066118 (2010)
[5] Appl. Netw. Sci. 4, 122 (2019)

A geometric approach to clustering

Assume that the nodes are **embedded in a metric space** and that any two nodes are connected with a probability that is a **decreasing function of the distance** between them.