CLUSTERING OF SOCIAL-NETWORK GRAPHS

k-means clustering suitable o find communities in social networks**??**

Source: Leskovec, J., Rajaraman, A., & Ullman, J. D. (2014). *Mining of massive datasets.* Cambridge university press.
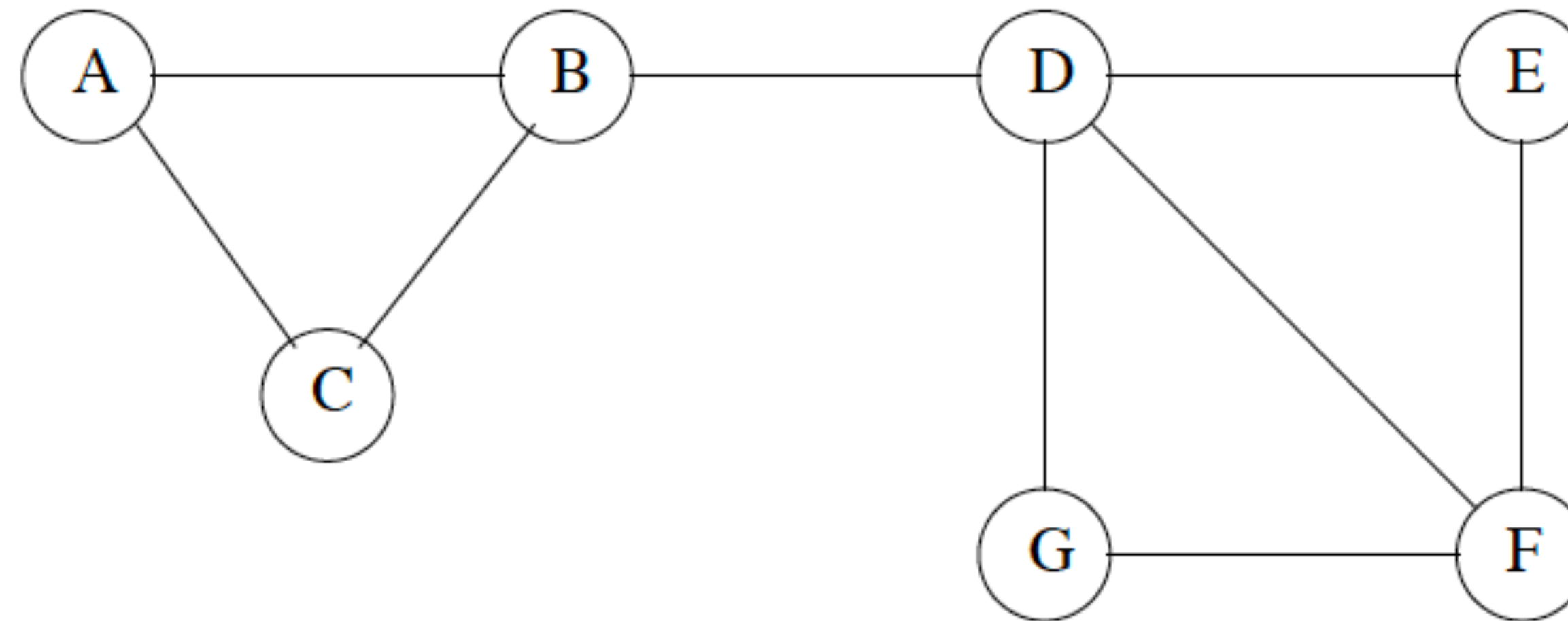
CLUSTERING OF SOCIAL-NETWORK GRAPHS

Global clustering coefficient:

- indication of the clustering in the whole network (global)
- can be applied to both undirected and directed networks (often called **transitivity**)

- based on triplets of nodes:

  - A triplet is three nodes that are connected by either **three (closed triplet)** or

  - **two (open triplet)** undirected ties of pairs of the node's connections that are connected with each other.

$$C = \frac{\text{number of closed triplets}}{\text{number of all triplets (open and closed)}}.$$

$$C = \frac{3 \times \text{number of triangles}}{\text{number of all triplets}}.$$