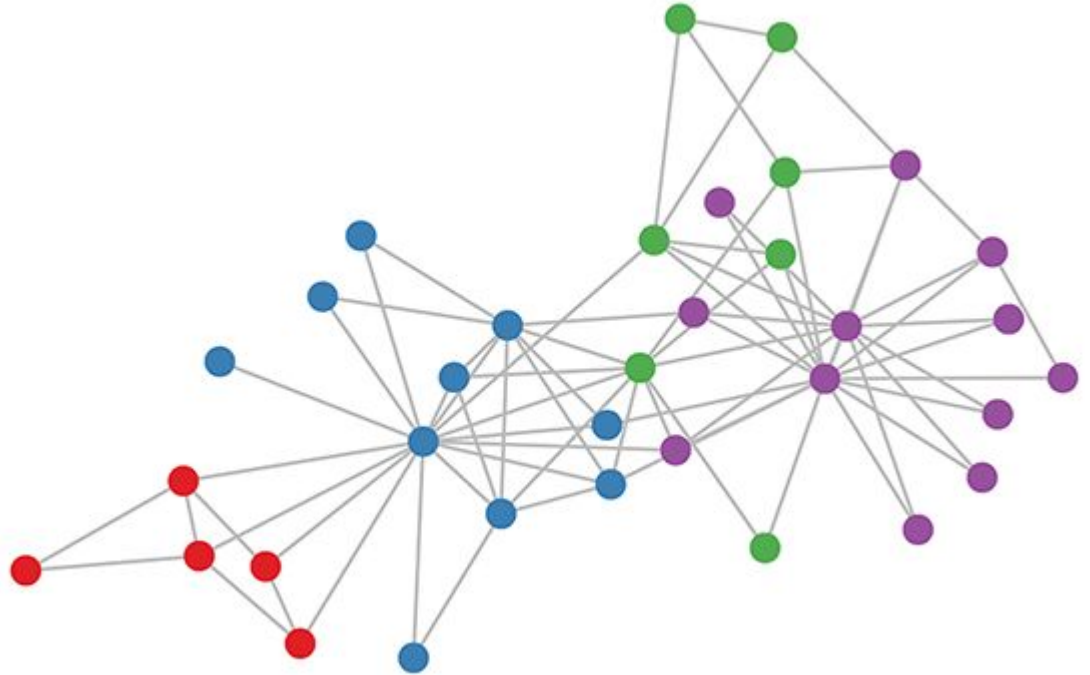# Introduction to network analysis in bibliometrics

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Definition of networks

- Nodes and edges
- Entities and connections
- Graph theory
- Connections among scholarly entities
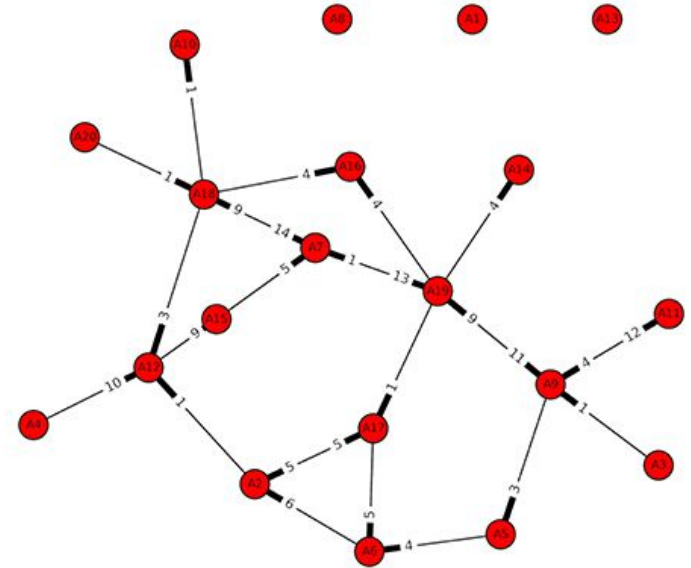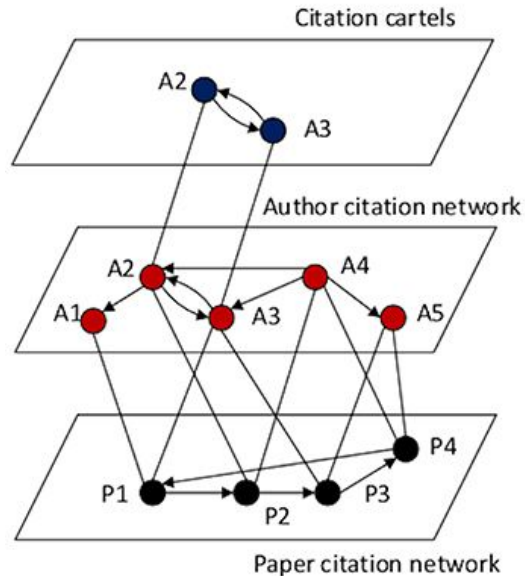- Authors, institutions, works.

Tools

- Several
- Igraph (R, Python)
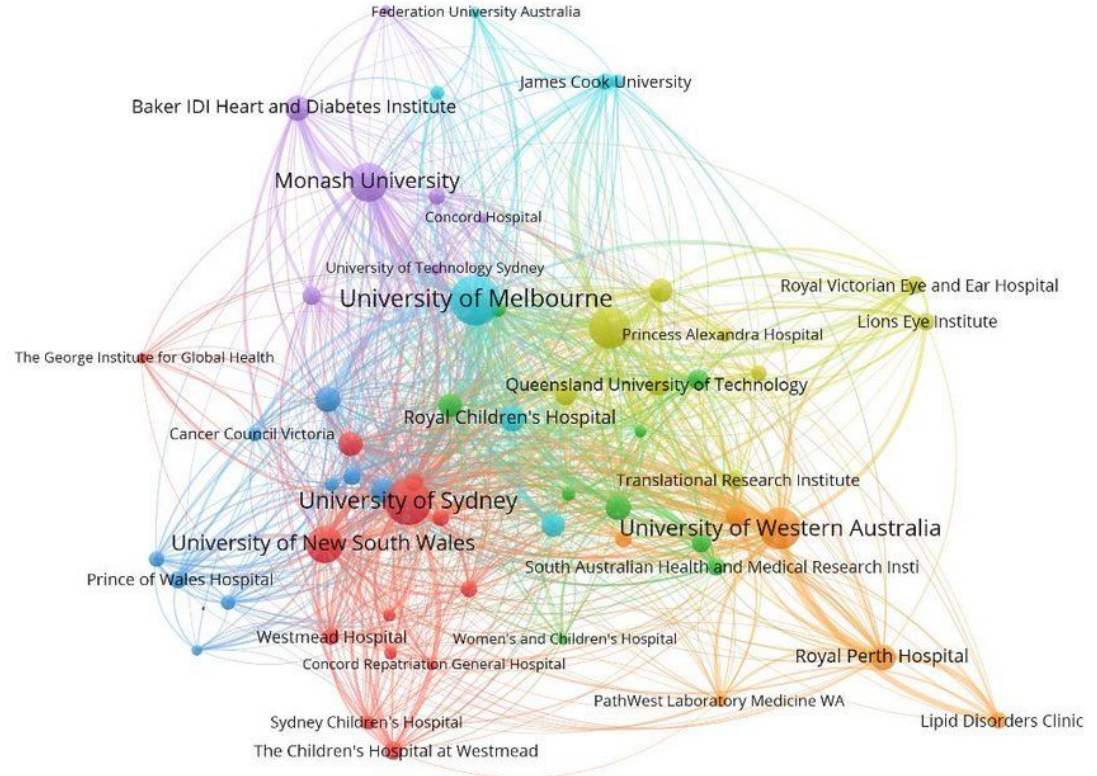- VOS Viewer
- Google Colaboratory
- BigQuery

Citation networks

Collaboration network

- Authors, institutions, groups, general aggregations
- Communities

Method

- Scholarly databases on BigQuery (could be any SQL server)
- Filter data of interest
- Queries to assemble networks
- Output file
- Plot networks

Codes to use

github.com/insyspo