

# **Network Analysis**

Network visualizations reveal relationships and flows in complex systems<sup>[1]</sup>. This page demonstrates various network analysis techniques.

### **Research Collaboration Network**

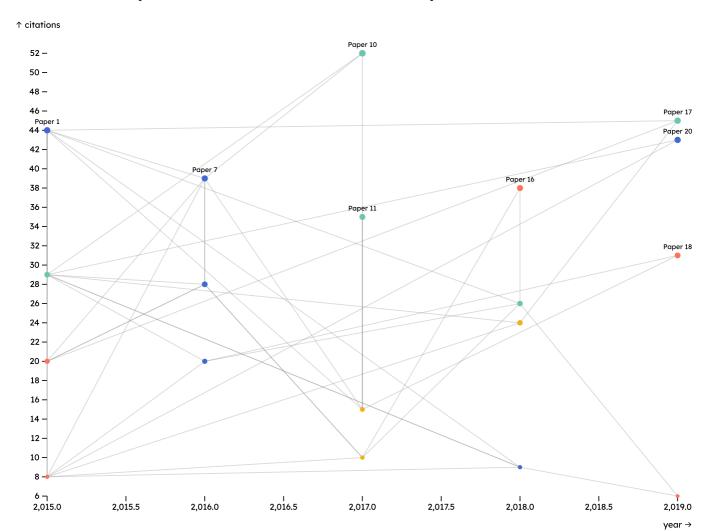
### Sankey Diagram: Research Funding Flow

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### **Citation Network Analysis**

#### **Citation Network Structure**

#### Papers and their citation relationships



#### **Network Metrics**

Node	Туре	•Degree	Connections
Lab B	University	3	3
Institute X	Research Institute	3	3
Institute Y	Research Institute	3	3
Company 2	Industry	3	3
Lab A	University	2	2
Lab C	University	2	2
Company 1	Industry	2	2
Gov Agency	Government	2	2

## **Applications**

Network analysis is crucial for understanding<sup>[2]</sup>:

- Collaboration Patterns: Co-authorship networks
- Knowledge Transfer: Citation and reference networks
- Resource Flow: Funding and grant networks
- Social Networks: Research community structure
- 1. Network science provides tools for analyzing complex relational data. Newman, M.E.J. (2010). Networks: An Introduction. Oxford University Press.
- 2. For applications in research evaluation, see: Börner, K., et al. (2018). Science Visualization: Transforming Data into Insights. MIT Press.