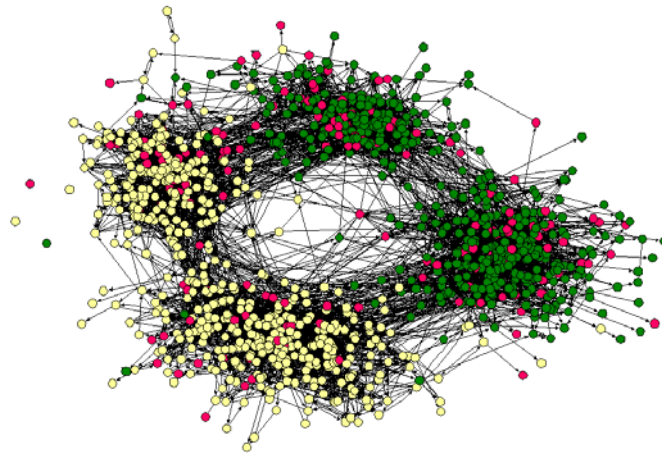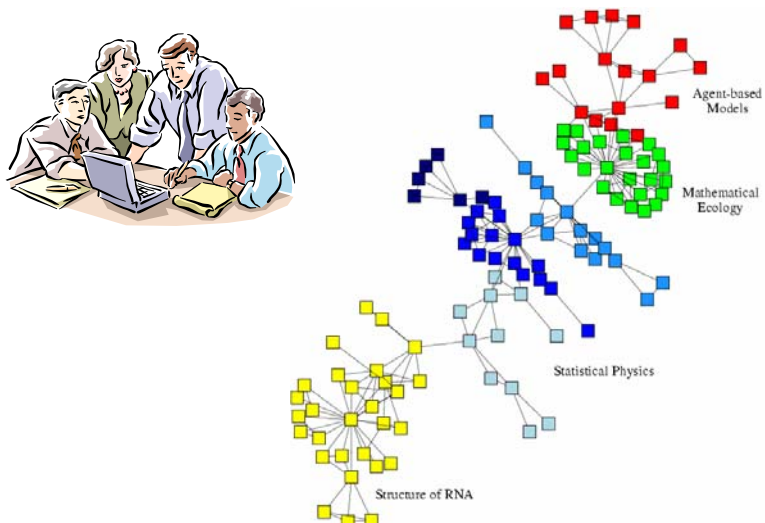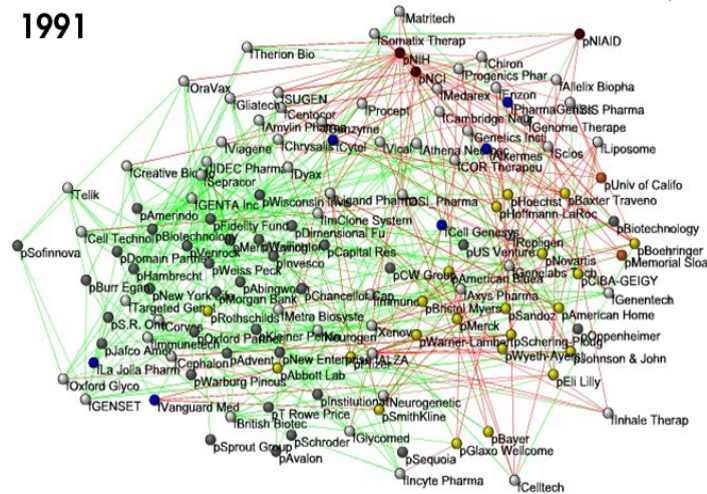# Friendship Network

Scientific collaboration network
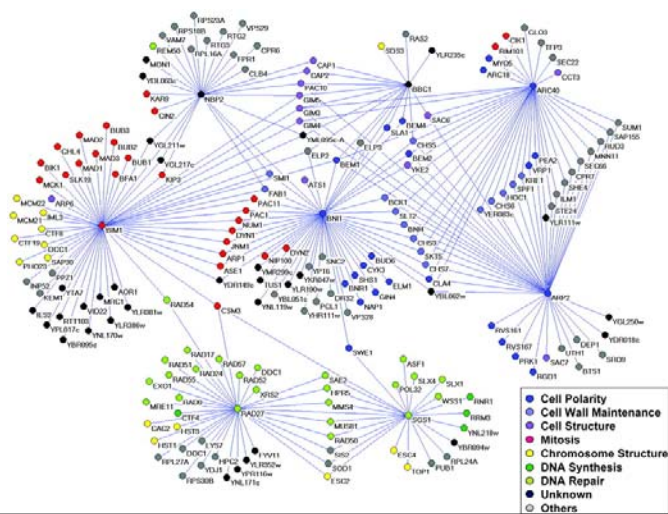
Business ties in US biotech-industry
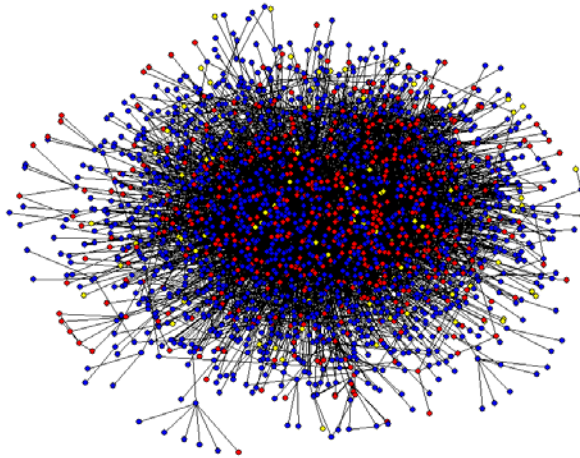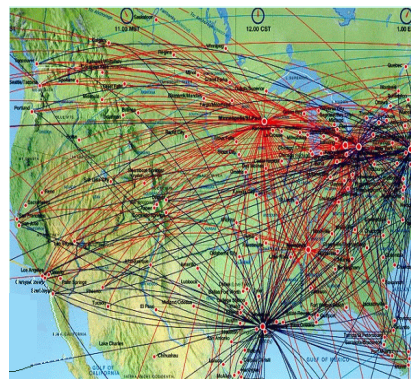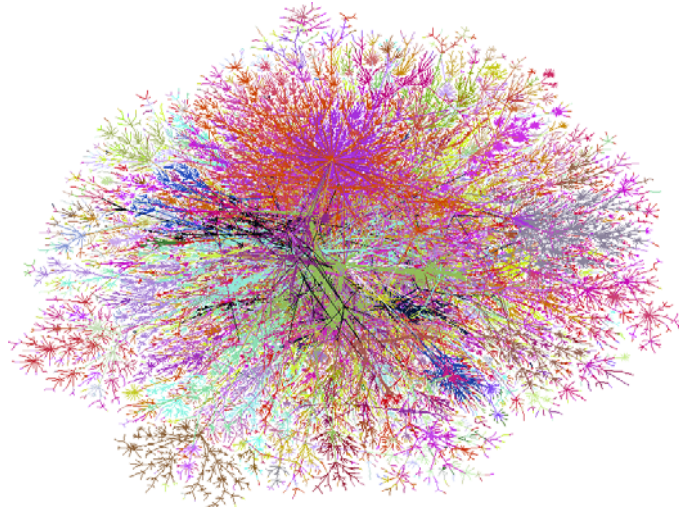

1991

Genetic interaction network
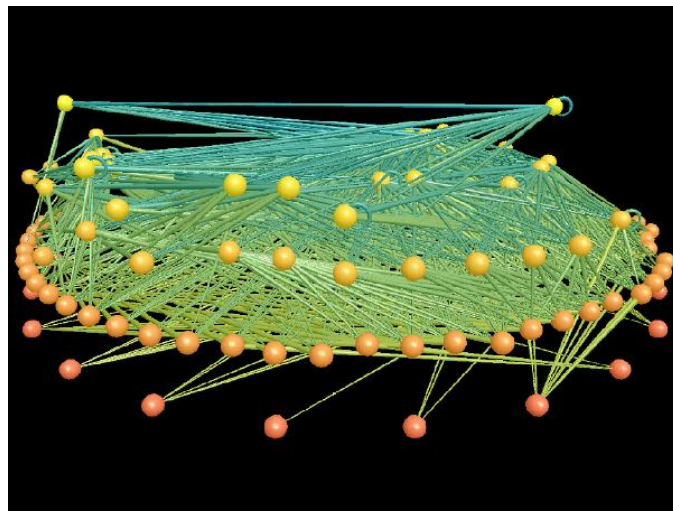
Protein-Protein Interaction Networks
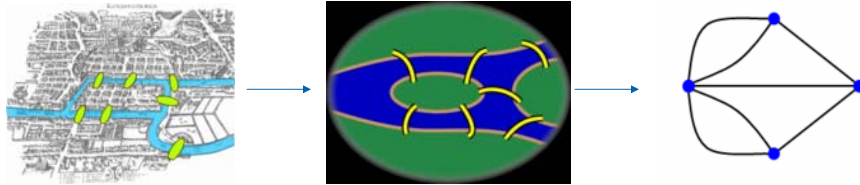

Transportation Networks

Internet

Ecological Networks

Graph Theory - History

Leonhard Euler's paper on "*Seven Bridges of Königsberg*",

published in 1736.

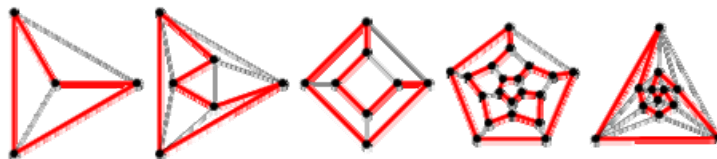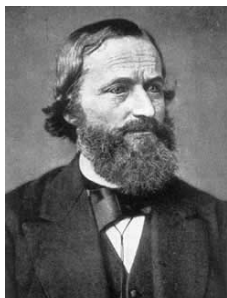# Graph Theory - History

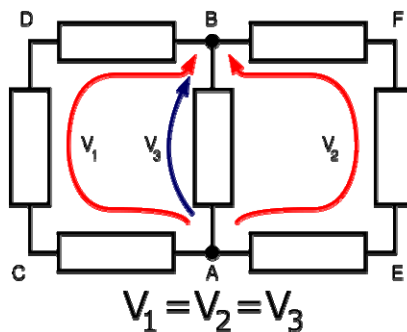**Cycles in Polyhedra**

Thomas P. Kirkman   William R. Hamilton

Hamiltonian cycles in Platonic graphs

Graph Theory - History

Trees in Electric Circuits

Gustav Kirchhoff

$$V_1 = V_2 = V_3$$

Graph Theory - History

Enumeration of Chemical Isomers –
n.b. topological distance a.k.a chemical distance
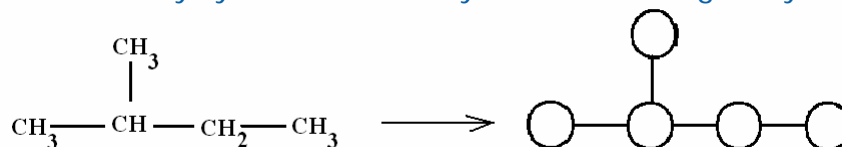

Arthur Cayley   James J. Sylvester   George Polya

Graph Theory - History

Four Colors of Maps

Francis Guthrie   Auguste DeMorgan