Traditional vs. Nontraditional Methods for Network Analytics

Professor Ernesto Estrada
Department of Mathematics & Statistics
University of Strathclyde
Glasgow, UK

www.estradalab.org
Topics of the Lectures

- Basic Introduction
- Centrality
- Bipartivity
- Topological Classes
- Degree Irregularity
- Degree Assortativity
- Communicability
Topics of the Lectures

**Main Text**

*A First Course in Network Theory*

*The Structure of Complex Networks: Theory and Applications*

**Auxiliary**

*Oxford*

*Ernesto Estrada*
General Context

\[ G = (V, E) \]

- **Nodes or Vertices**: \( V = \{ v_1, \ldots \} \)
- **Edges or Links**: \( E \subseteq V \times V \)