

Complexity of Networks

- **Structural:** *human population has ~7 B nodes, there are millions of computers on the Internet...*
- **Evolution:** *people make new friends all the time, ISP's change hands all the time...*
- **Diversity:** *some people are more popular, some friendships are more important...*
- **Node Complexity:** *Endpoints have different CPUs, Windows is a complicated OS, Mobile devices ...*
- **Emergent phenomena:** *simple end behavior → leads to → complex system-wide behavior.*
 - *If we understand the basics of climate change, why is the weather so unpredictable?*