

# Modeling & Control of propagation Dynamics on Complex Networks

**Background:** Spreading processes are ubiquitous in wherever there exist contact or communication possibilities, ranging from epidemic spreading, information dissemination to cascading failures. Two potential aspects need to be addressed:

- (I) How to rationally model the propagation phenomenon based on network theory?
- (II) How to efficiently intervene in the spreading process according to data-driven thoughts?

**Methods:** weighted network, temporal network, spatial network; game theory, data-driven control, reinforcement learning

**Applications:** trend evaluation of COVID-19, sociological analysis of online social networks, cascading predication of power or communication systems

