

**[P16] Spreading dynamics on multiplex networks**

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Many complex networks explicitly contain more than one type of links with different operation. Here we study an SIR model as an example of spreading dynamics on networks with multiple types of links, called the multiplex networks with different transmissibility dependent on types of incoming and outgoing channels. We found that the spreading process on multiplex networks cannot be reduced into that on simple, superposed networks. These observations imply that considering information of multiple types of links is needed to predict more accurate spreading dynamics.