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Dynamical behavior of susceptible-infected-recovered-susceptible epidemic model on weighted networks

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Title: Dynamical behavior of susceptible–infected–recovered–susceptible epidemic model on edge-weighted networks

### Highlights

- A pairwise model of SIRS epidemic models with a general transmission rate is formulated.
- We develop a method to derive the epidemic threshold.
- The heterogeneity of weight distribution has a significant influence on the epidemic threshold.
- The difference between SIS and SIR models on weighted networks is explained.

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