SIRNETWORK MODEL AND EPIDEMICS DYNAMICS IN A CITY

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Abstract

We are considering a model for dengue epidemics spreading in a densely populated town, where people move daily from one neighborhood to another. For this purpose we consider a network generalization of SIR model with and without birth and death. We are particularly interested in understanding how the geometry of the network, its homogeneity or non homogeneity, the flux of people and a possible seasonal periodicity of climate have an effect in the occurrence of an epidemics.

REFERENCES