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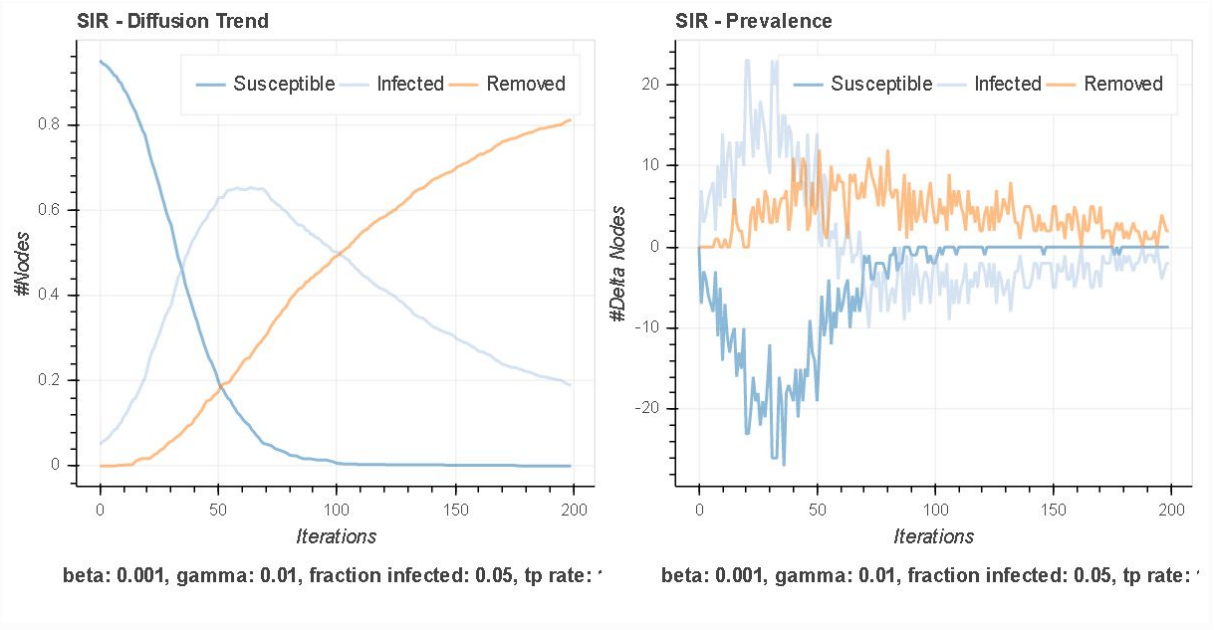
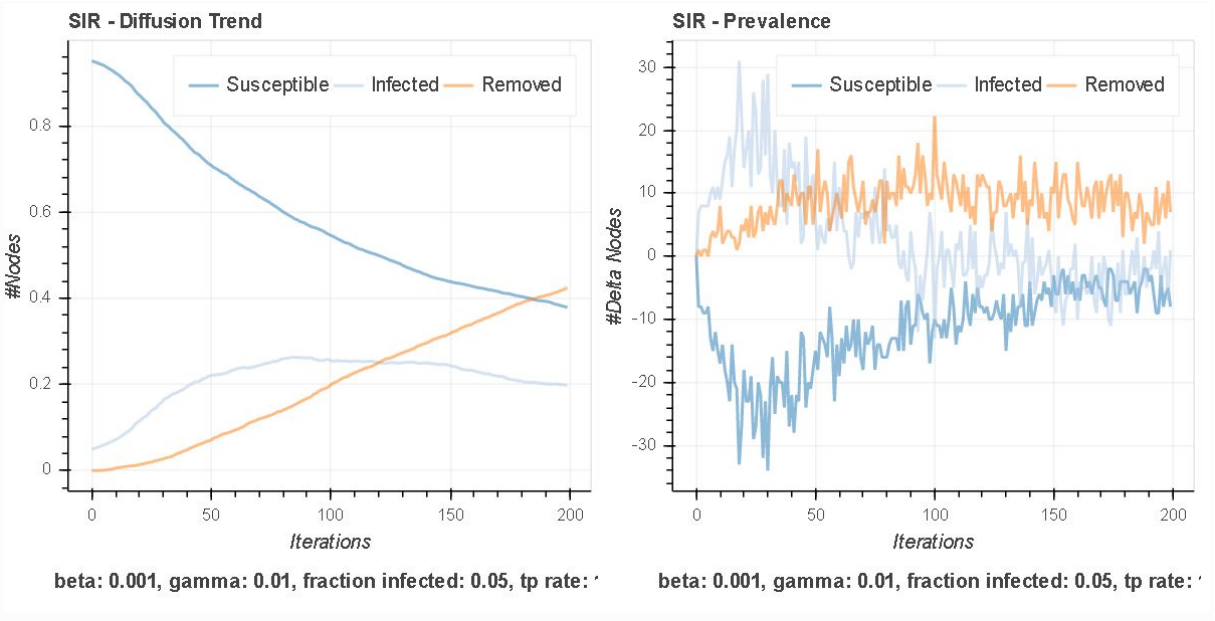
4th Assignment: NDLib on Facebook

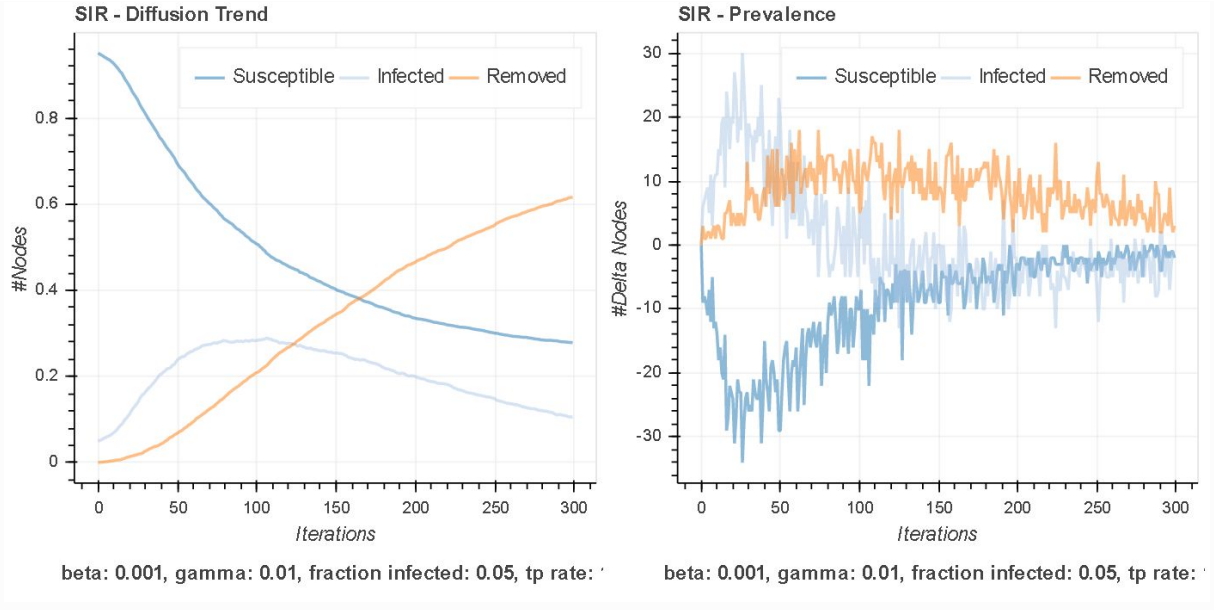
It is designed to configure, simulate and visualize diffusion experiments.
For each sample graph (ER random graph and Facebook real network), we pick a P0 seed node i at random to be the patient zero at time t = 0 and then we run SIR a fixed number of steps T (200 and 300).
The epidemic parameters (α, β, γ) are chosen such that we can vary R0 to study model performance.
We set **γ = 0.01** and **β = 0.001**.



[g = nx.erdos_renyi_graph(1000, 0.1)]



[g = nx.read_edgelist("facebook_combined.txt", nodetype=int)]



[g = "facebook_combined.txt" with iterations=300]

One important point: DMP requires explicit input of **β**, **γ** and **t** while GNNs are model agnostic (it does not require it!). We'll see "Finding Patient Zero: Learning Contagion Source with Graph Neural Networks".