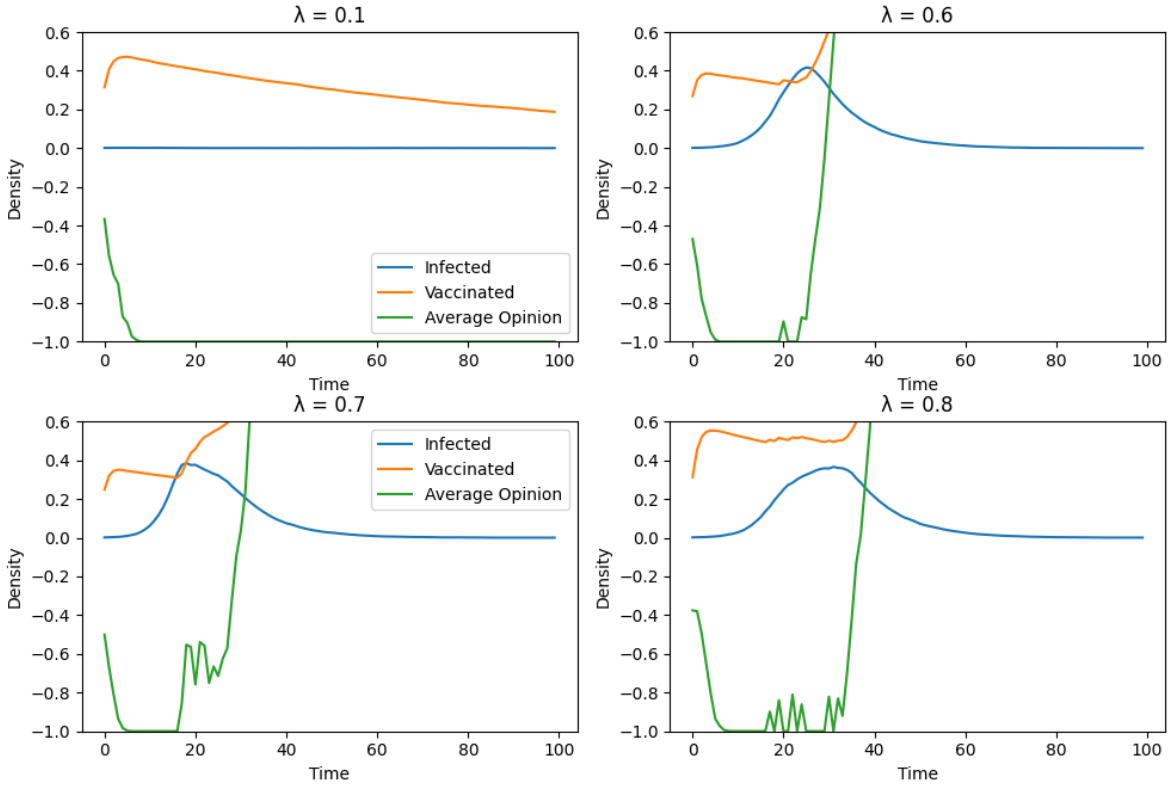
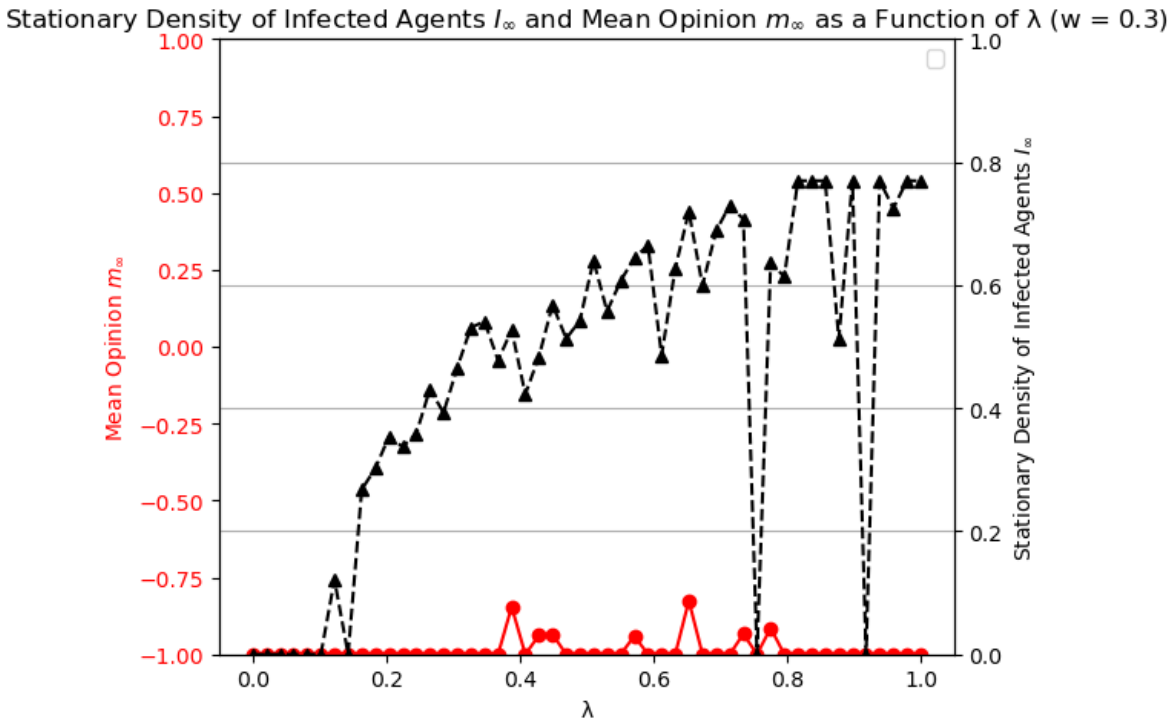
Plots

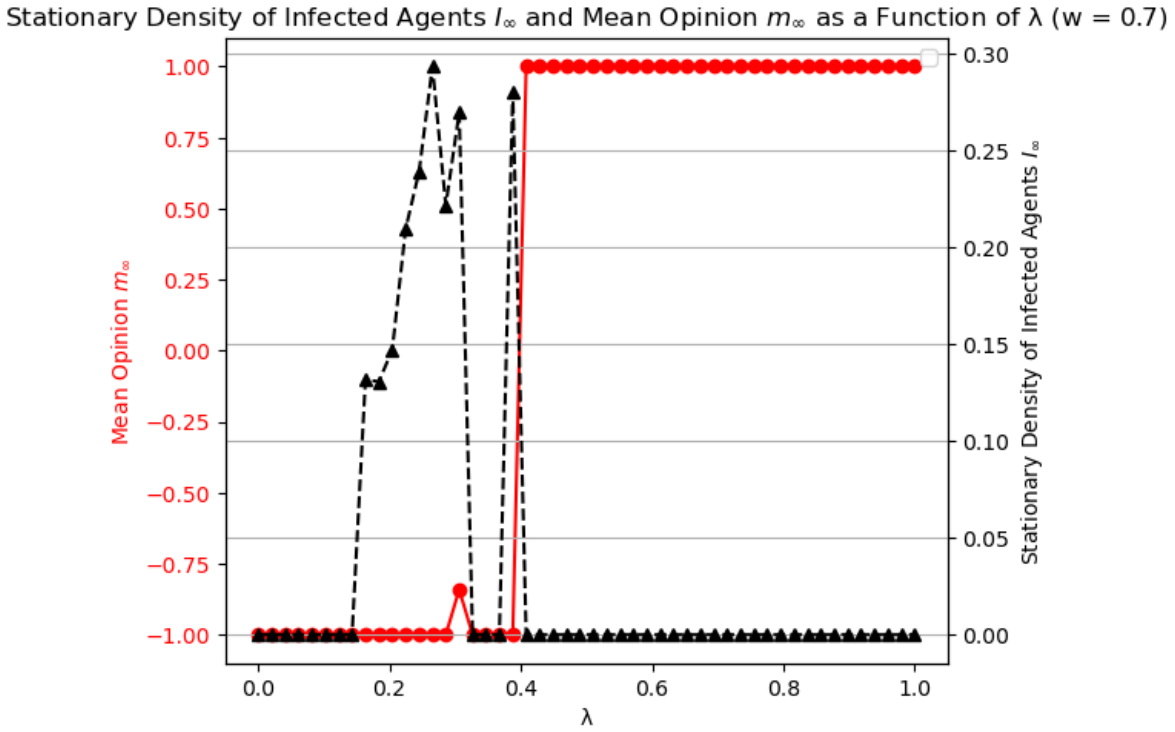
Baseline Simulation

Tuning λ leads to different temporal evolutions for $I(t)$, $V(t)$ and $m(t)$. Each time series comes from a single Monte Carlo simulation (realization). Parameters used are $D = 0.20$, $w = 0.90$, $\alpha = 0.1$, $\varphi = 0.01$ and $N = 10^4$. (a) $\lambda = 0.1$. (b)$\lambda = 0.1$. (c)$\lambda = 0.1$. (d)$\lambda = 0.6$. (e)$\lambda = 0.6$. (f) $\lambda = 0.6$. (g)$\lambda = 0.7$.(h) $\lambda = 0.7$. (i)$\lambda = 0.7$. (j)$\lambda = 0.8$. (k)$\lambda = 0.8$. (l) $\lambda = 0.8$.



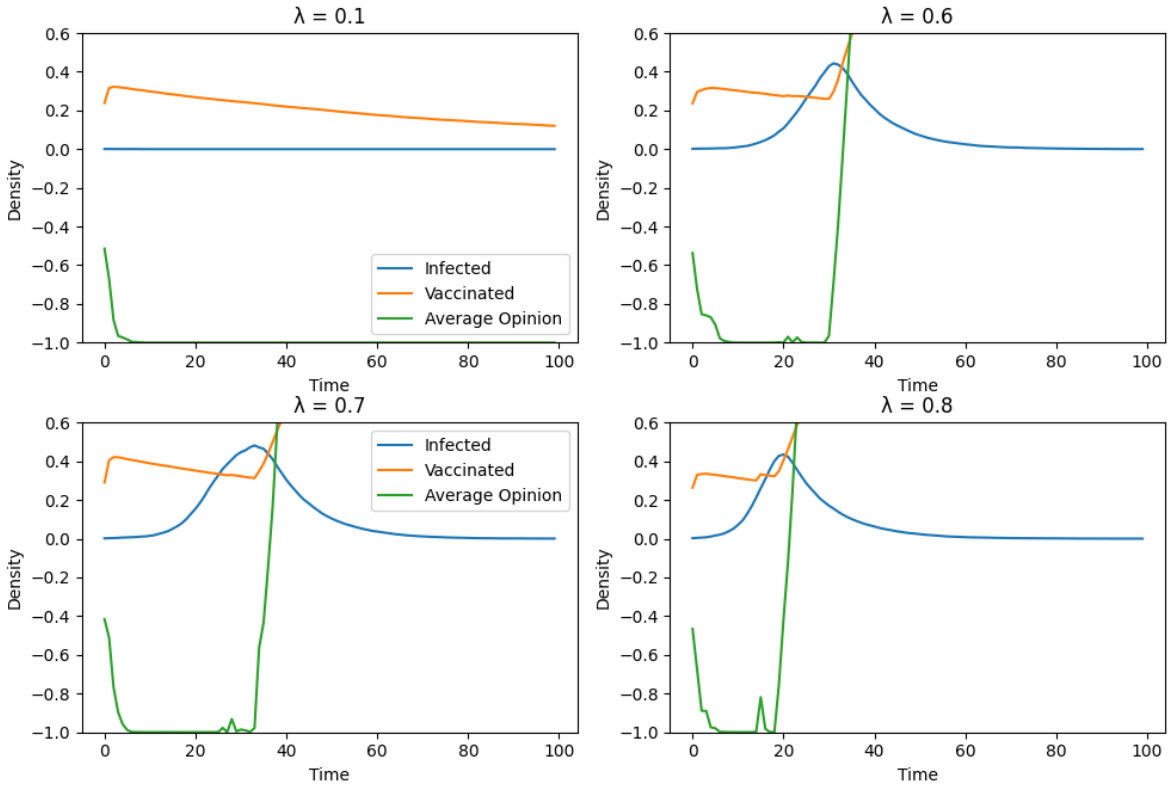
Stationary density of Infected agents I_∞ averaged only over surviving runs (left y-axis) and mean opinion $m_\infty = \sum_{i=1}^{N} \frac{o_i}{N}$ (right y-axis) as a function of λ for $w = 0.3$ (left) and $w = 0.7$ (right). Parameters used are $D = 0.1$,$\varphi = 0.01$, $\alpha = 0.1$ and $N = 10^4$. Data are averaged over 100 independent simulations. Acronyms: DF = Disease-Free, E = Endemic.



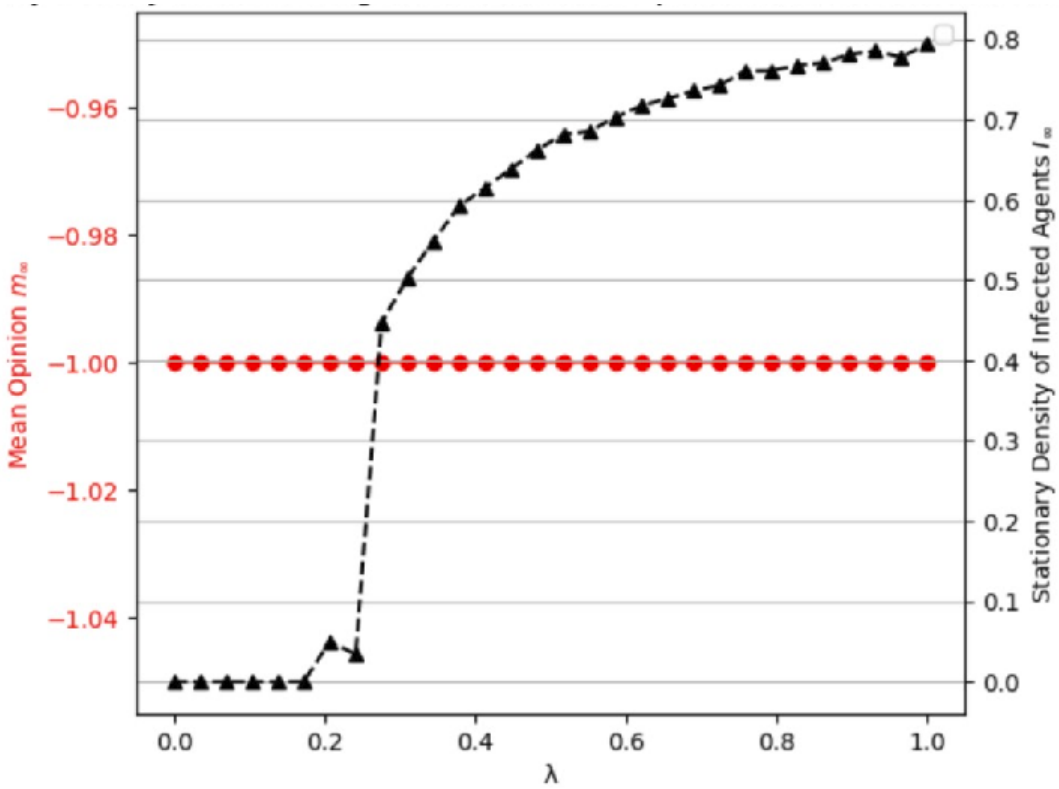


Erdos-Renyi Simulation

Tuning λ leads to different temporal evolutions for $I(t)$, $V(t)$ and $m(t)$. Each time series comes from a single Monte Carlo simulation (realization). Parameters used are $D = 0.20$, $w = 0.90$, $\alpha = 0.1$, $\varphi = 0.01$ and $N = 10^4$. (a) $\lambda = 0.1$. (b)$\lambda = 0.1$. (c)$\lambda = 0.1$. (d)$\lambda = 0.6$. (e)$\lambda = 0.6$. (f) $\lambda = 0.6$. (g)$\lambda = 0.7$.(h) $\lambda = 0.7$. (i)$\lambda = 0.7$. (j)$\lambda = 0.8$. (k)$\lambda = 0.8$. (l) $\lambda = 0.8$.



parameters are $\epsilon = 1$, $w = 0.8$ and $\alpha = 0.1$ and $\phi = 0.01$



Figures

parameters are ϵ=1,w=0.8 and α=0.1 and ϕ=0.01.

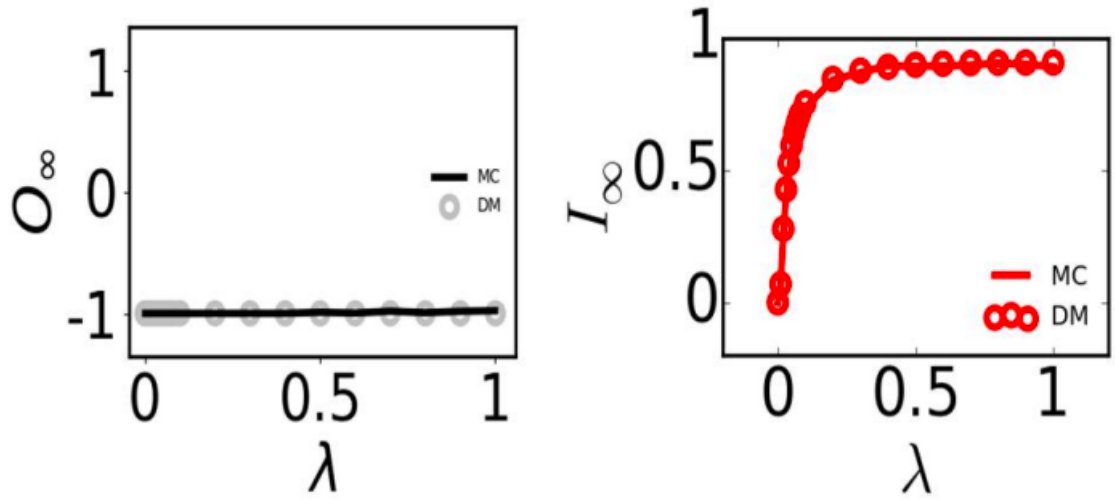


Figure: Opinion and Infection varying with λ .
MC: stochastic monte carlo.
DM: discrete model