SIR using Gillespie's discrete event model  $(\beta = 1.00e-01, \gamma = 1.00e-02, \mu = 0.00e+00, \epsilon = 0.00e+00, I_0 = 1.00e-01, N_{pop} = 4.0e+01)$ 30 population 10 Susceptible Infected Recovered 0 25 50 75 100 125 150 175 200 time *t*