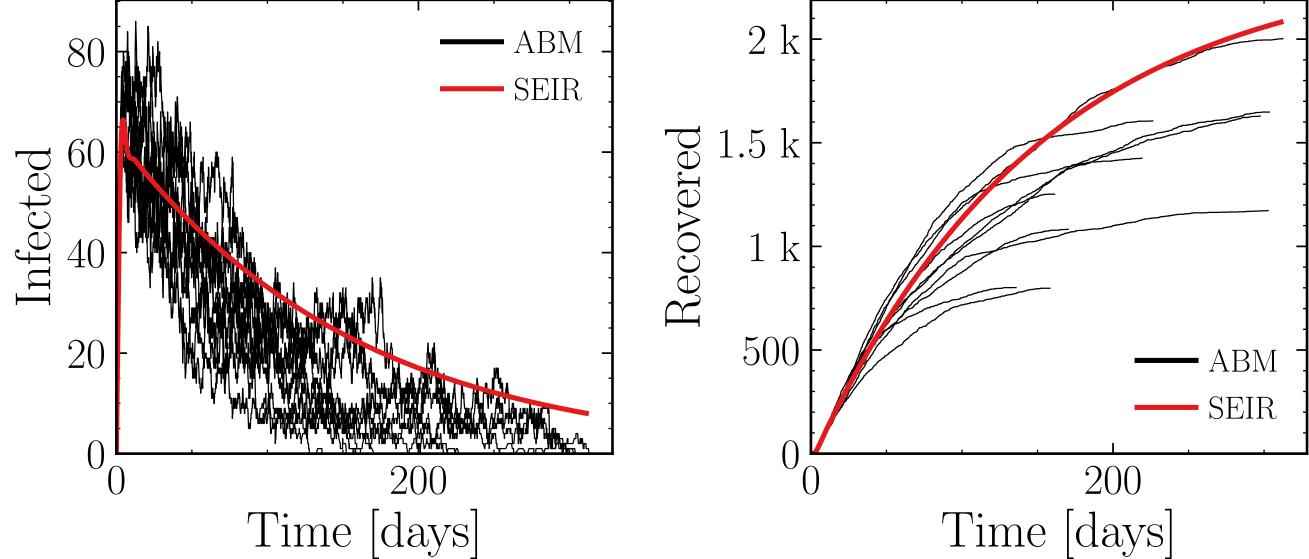
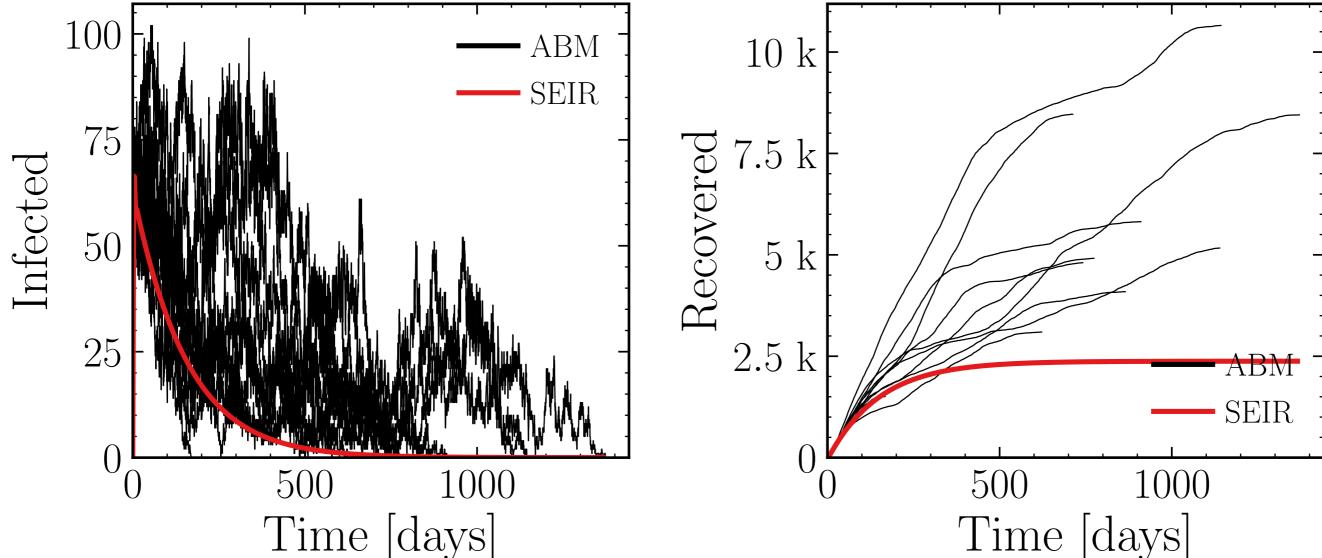
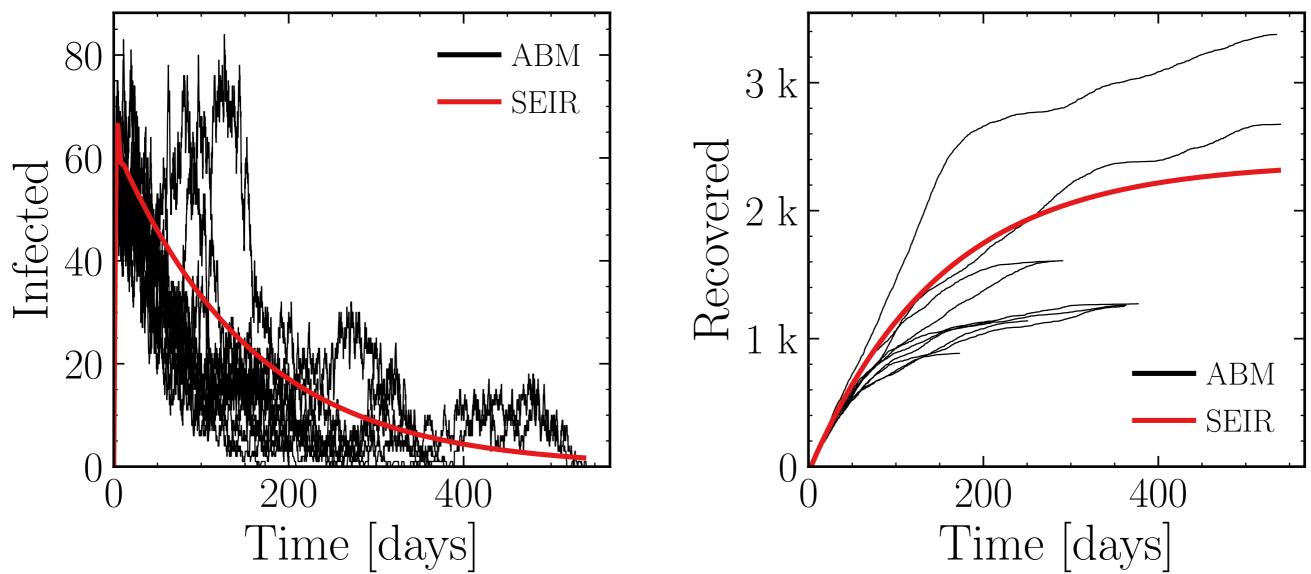
$N_{\text{tot}} = 580K, \ \rho = 0.0, \ \epsilon_{\rho} = 0.04, \ \mu = 20, \ \sigma_{\mu} = 0.0, \ \beta = 0.012, \ \sigma_{\beta} = 0.0, \ \text{algo} = 2, \ N_{\text{init}} = 100$ $\lambda_{E} = 1.0, \ \lambda_{I} = 1.0, \ \text{rand.inf.} = \text{True}, \ N_{\text{retries}}^{\text{connect}} = 0, \ N_{\text{events}} = 0, \ \text{event}_{\text{size}_{\text{max}}} = 580K, \ \text{v.} = 1.0, \ \text{hash} = 4e956556da, \ \#10$ $R_{\infty}^{\text{ABM}} = (75 \pm 2.7\%) \cdot \text{ABM}$ SEIR



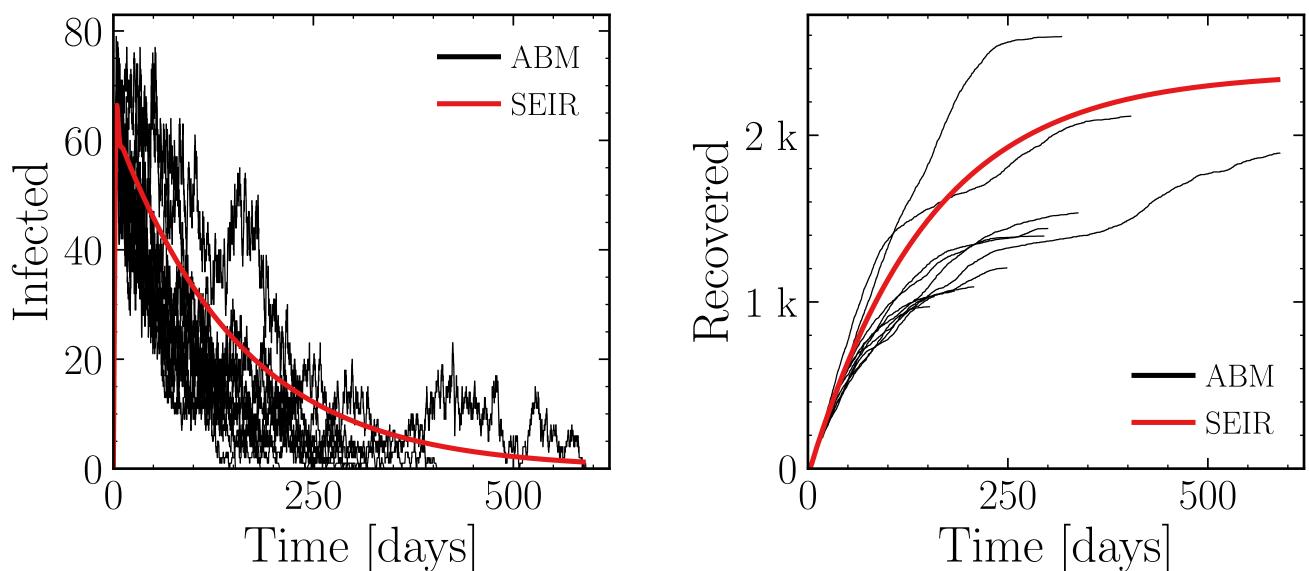
 $N_{\rm tot} = 580K, \ \rho = 0.0, \ \epsilon_{\rho} = 0.04, \ \mu = 20, \ \sigma_{\mu} = 0.0, \ \beta = 0.012, \ \sigma_{\beta} = 0.0, \ {\rm algo} = 2, \ N_{\rm init} = 100$ $\lambda_{E} = 1.0, \ \lambda_{I} = 1.0, \ {\rm rand.inf.} = {\rm True}, \ N_{\rm retries}^{\rm connect} = 0, \ N_{\rm events} = 100, \ {\rm event}_{\rm size_{max}} = 50, \ {\rm v.} = 1.0, \ {\rm hash} = 4a33b22195, \ \#10$ $R_{\rm max}^{\rm ABM} = (80 \pm 4.0\%) \cdot 10^{3}$ $100 \ k_{\rm max}^{\rm ABM} = (5.7 \pm 1.5e + 01\%) \cdot 10^{3}$



 $N_{\rm tot} = 580K, \ \rho = 0.0, \ \epsilon_{\rho} = 0.04, \ \mu = 20, \ \sigma_{\mu} = 0.0, \ \beta = 0.012, \ \sigma_{\beta} = 0.0, \ {\rm algo} = 2, \ N_{\rm init} = 100$ $\lambda_{E} = 1.0, \ \lambda_{I} = 1.0, \ {\rm rand.inf.} = {\rm True}, \ N_{\rm retries}^{\rm connect} = 0, \ N_{\rm events} = 100, \ {\rm event}_{\rm size_{max}} = 20, \ {\rm v.} = 1.0, \ {\rm hash} = 8a5e63f9ff, \ \#10$ $R_{\rm max}^{\rm ABM} = (72 \pm 2.8\%) \cdot 10^{3}$



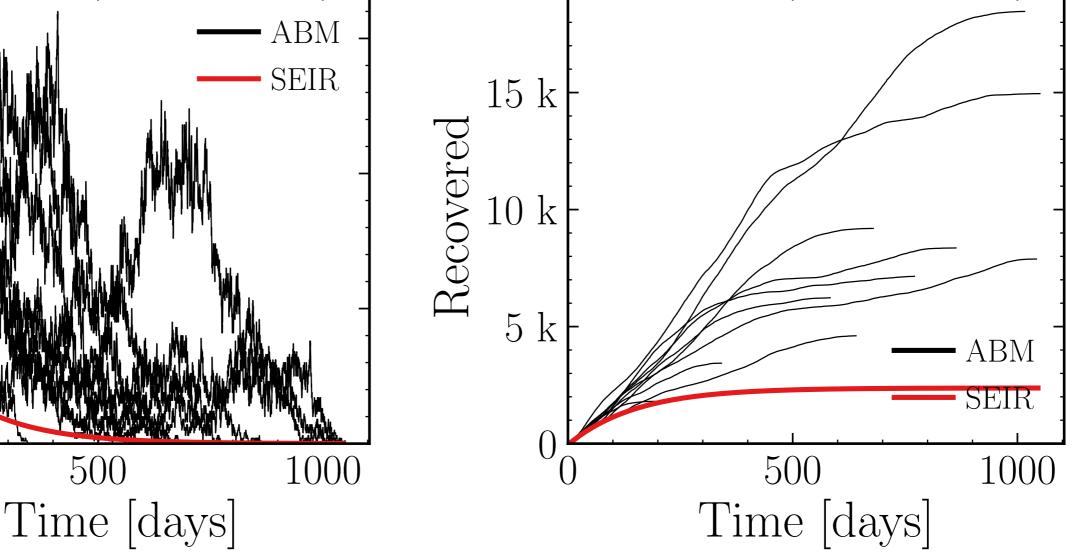
 $N_{\rm tot} = 580K, \ \rho = 0.0, \ \epsilon_{\rho} = 0.04, \ \mu = 20, \ \sigma_{\mu} = 0.0, \ \beta = 0.012, \ \sigma_{\beta} = 0.0, \ {\rm algo} = 2, \ N_{\rm init} = 100$ $\lambda_{E} = 1.0, \ \lambda_{I} = 1.0, \ {\rm rand.inf.} = {\rm True}, \ N_{\rm retries}^{\rm connect} = 0, \ N_{\rm events} = 100, \ {\rm event}_{\rm size_{max}} = 10, \ {\rm v.} = 1.0, \ {\rm hash} = afdd06ce79, \ \#10$ $N_{\rm max}^{\rm ABM} = (74 \pm 1.7\%) \cdot 10^{3}$



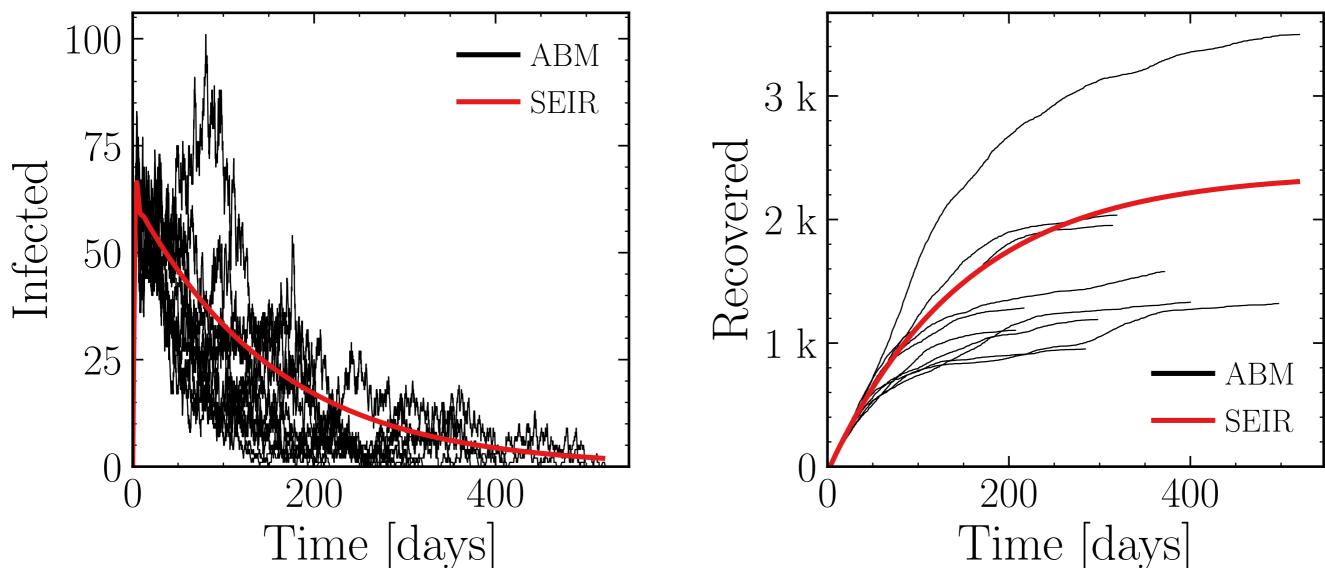
 $N_{\text{tot}} = 580K$, $\rho = 0.0$, $\epsilon_{\rho} = 0.04$, $\mu = 20$, $\sigma_{\mu} = 0.0$, $\beta = 0.012$, $\sigma_{\beta} = 0.0$, algo = 2, $N_{\text{init}} = 100$ $\lambda_E = 1.0, \ \lambda_I = 1.0, \ \text{rand.inf.} = \text{True}, \ N_{\text{retries}}^{\text{connect}} = 0, \ N_{\text{events}} = 500, \ \text{event}_{\text{size}_{\text{max}}} = 50, \ \text{v.} = 1.0, \ \text{hash} = e6d88b91c1, \#10$ $I_{\text{max}}^{\text{ABM}} = (5.96 \pm 1.1\%) \cdot 10^3$ $R_{\infty}^{\text{ABM}} = (190.1 \pm 0.5\%) \cdot 10^3$ 200 k 6 k ABM SEIR $150 \mathrm{k}$ Infected by A k 100 k 2 k 50 k - ABM SEIR 250 500 250 500 Time [days] Time |days|

 $N_{\text{tot}} = 580K$, $\rho = 0.0$, $\epsilon_{\rho} = 0.04$, $\mu = 20$, $\sigma_{\mu} = 0.0$, $\beta = 0.012$, $\sigma_{\beta} = 0.0$, algo = 2, $N_{\text{init}} = 100$ $\lambda_E = 1.0$, $\lambda_I = 1.0$, rand.inf. = True, $N_{\text{retries}}^{\text{connect}} = 0$, $N_{\text{events}} = 500$, event_{size_{max}} = 20, v. = 1.0, hash = d06261f8d6, #10 $I_{\text{max}}^{\text{ABM}} = (109 \pm 7.9\%)$ $R_{\infty}^{ABM} = (8 \pm 1.9e + 01\%) \cdot 10^3$ ABM 150 SEIR 15 k Infected 100 10 k 5 k

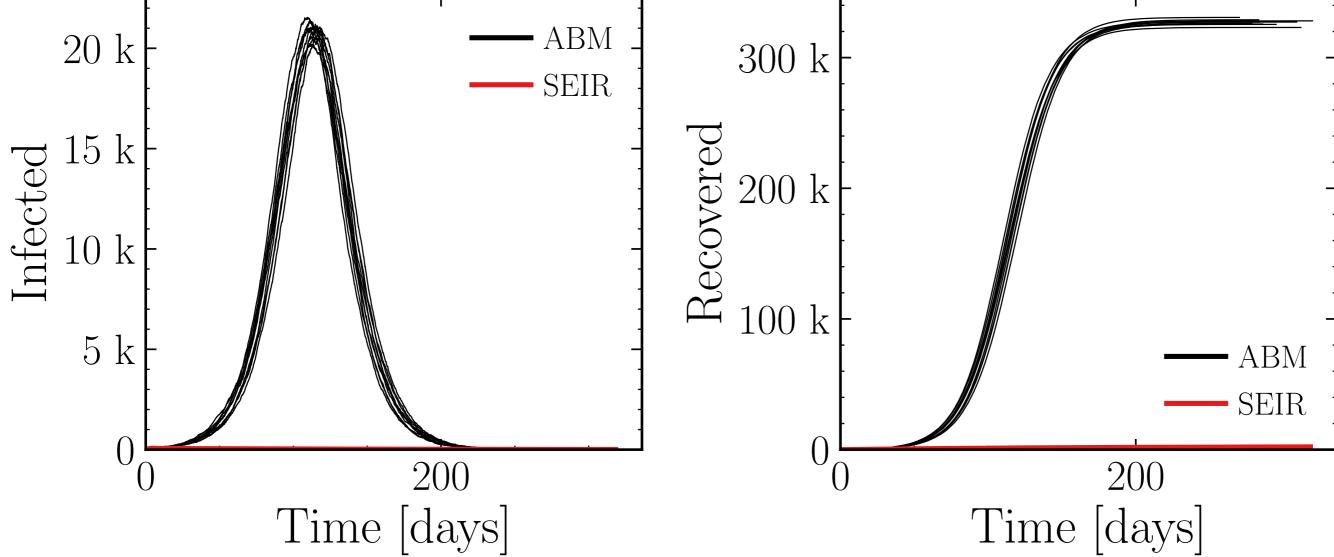
500



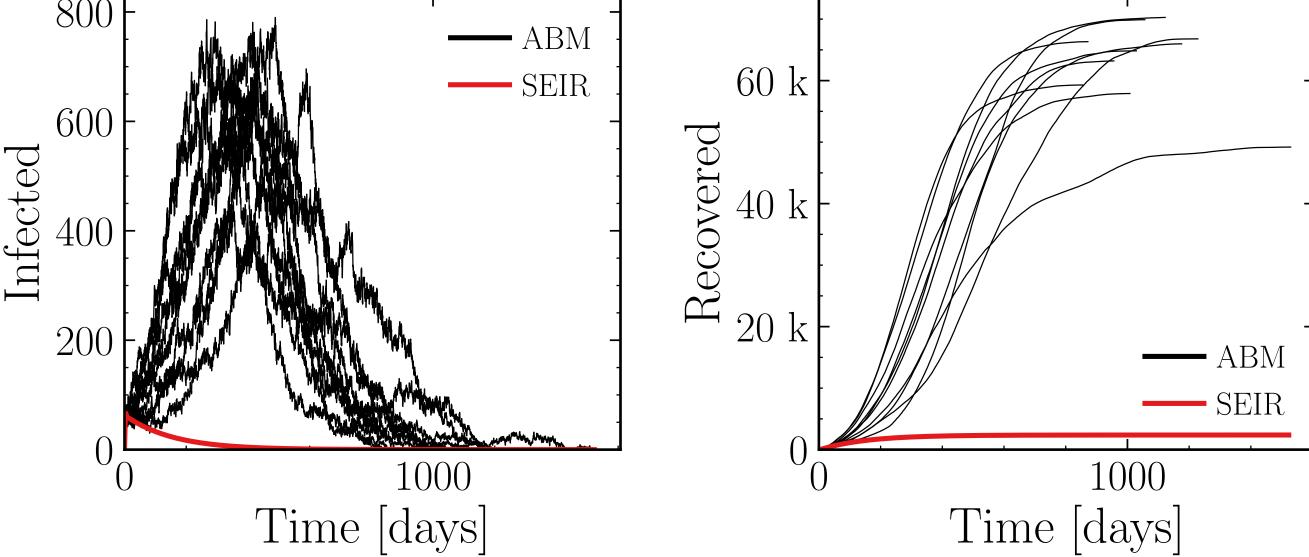
 $N_{\rm tot} = 580K, \ \rho = 0.0, \ \epsilon_{\rho} = 0.04, \ \mu = 20, \ \sigma_{\mu} = 0.0, \ \beta = 0.012, \ \sigma_{\beta} = 0.0, \ {\rm algo} = 2, \ N_{\rm init} = 100$ $\lambda_{E} = 1.0, \ \lambda_{I} = 1.0, \ {\rm rand.inf.} = {\rm True}, \ N_{\rm retries}^{\rm connect} = 0, \ N_{\rm events} = 500, \ {\rm event}_{\rm size_{max}} = 10, \ {\rm v.} = 1.0, \ {\rm hash} = db 83041479, \ \#10$ $R_{\infty}^{\rm ABM} = (74 \pm 4.0\%) \cdot 10^{3}$



 $N_{\text{tot}} = 580K$, $\rho = 0.0$, $\epsilon_{\rho} = 0.04$, $\mu = 20$, $\sigma_{\mu} = 0.0$, $\beta = 0.012$, $\sigma_{\beta} = 0.0$, algo = 2, $N_{\text{init}} = 100$ $\lambda_E = 1.0$, $\lambda_I = 1.0$, rand.inf. = True, $N_{\text{retries}}^{\text{connect}} = 0$, $N_{\text{events}} = 1K$, event_{size_{max}} = 50, v. = 1.0, hash = 3e3e7252c4, #10 $I_{\text{max}}^{\text{ABM}} = (21 \pm 0.59\%) \cdot 10^3$ $R_{\infty}^{ABM} = (326.8 \pm 0.2\%) \cdot 10^3$ ABM 20 k 300 k SEIR 200 k



 $N_{\text{tot}} = 580K$, $\rho = 0.0$, $\epsilon_{\rho} = 0.04$, $\mu = 20$, $\sigma_{\mu} = 0.0$, $\beta = 0.012$, $\sigma_{\beta} = 0.0$, algo = 2, $N_{\text{init}} = 100$ $\lambda_E = 1.0, \ \lambda_I = 1.0, \ \text{rand.inf.} = \text{True}, \ N_{\text{retries}}^{\text{connect}} = 0, \ N_{\text{events}} = 1K, \ \text{event}_{\text{size}_{\text{max}}} = 20, \ \text{v.} = 1.0, \ \text{hash} = 1db0a83f57, \#10$ $I_{\text{max}}^{\text{ABM}} = (680 \pm 4.9\%)$ $R_{\infty}^{\text{ABM}} = (63 \pm 3.0\%) \cdot 10^3$ 800 ABM 60 k SEIR 600 Infected 40 k 400 200 ABM

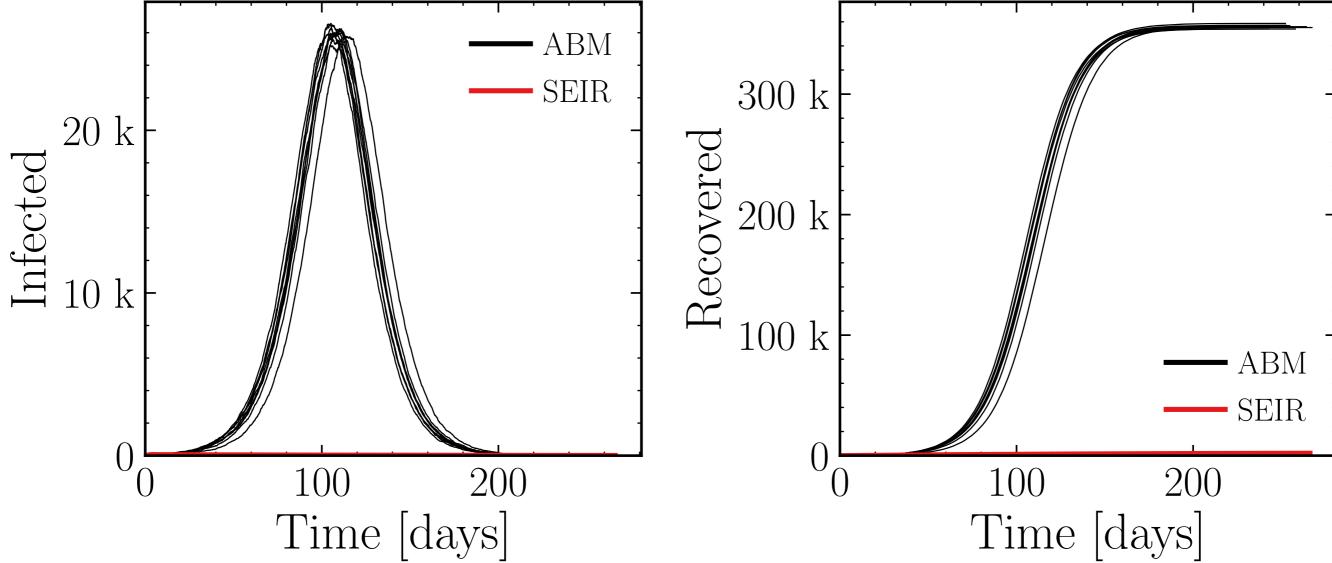


 $N_{\text{tot}} = 580K$, $\rho = 0.0$, $\epsilon_{\rho} = 0.04$, $\mu = 20$, $\sigma_{\mu} = 0.0$, $\beta = 0.012$, $\sigma_{\beta} = 0.0$, algo = 2, $N_{\text{init}} = 100$ $\lambda_E = 1.0, \ \lambda_I = 1.0, \ \text{rand.inf.} = \text{True}, \ N_{\text{ret.ries}}^{\text{connect}} = 0, \ N_{\text{events}} = 1K, \ \text{event}_{\text{size}_{\text{max}}} = 10, \ \text{v.} = 1.0, \ \text{hash} = a8234f919e, \#10$ $R_{\infty}^{\text{ABM}} = (2.9 \pm 1.7e + 01\%) \cdot 10^3$ $I_{\text{max}}^{\text{ABM}} = (87 \pm 5.7\%)$ 6 k ABM SEIR 100 Becovered 7 k Infected 50 ABM SEIR

1000 500 1000 500 Time [days] Time [days]

 $N_{\text{tot}} = 580K$, $\rho = 0.0$, $\epsilon_{\rho} = 0.04$, $\mu = 20$, $\sigma_{\mu} = 0.0$, $\beta = 0.012$, $\sigma_{\beta} = 0.0$, algo = 2, $N_{\text{init}} = 100$ $\lambda_E = 1.0$, $\lambda_I = 1.0$, rand.inf. = True, $N_{\text{retries}}^{\text{connect}} = 0$, $N_{\text{events}} = 5K$, event_{size_{max}} = 50, v. = 1.0, hash = 094261d298, #10 $I_{\text{max}}^{\text{ABM}} = (117.3 \pm 0.12\%) \cdot 10^3$ $R_{\infty}^{\text{ABM}} = (549.91 \pm 0.015\%) \cdot 10^3$ ABM 100 k SEIR Becovered 5 200 k Infected 75 k 50 k 25 k - ABM SEIR 50 100 50 100 Time [days] Time [days]

 $N_{\text{tot}} = 580K$, $\rho = 0.0$, $\epsilon_{\rho} = 0.04$, $\mu = 20$, $\sigma_{\mu} = 0.0$, $\beta = 0.012$, $\sigma_{\beta} = 0.0$, algo = 2, $N_{\text{init}} = 100$ $\lambda_E = 1.0$, $\lambda_I = 1.0$, rand.inf. = True, $N_{\text{retries}}^{\text{connect}} = 0$, $N_{\text{events}} = 5K$, event_{size_{max}} = 20, v. = 1.0, hash = e7983dbda2, #10 $I_{\text{max}}^{\text{ABM}} = (26.1 \pm 0.47\%) \cdot 10^3$ $R_{\infty}^{\text{ABM}} = (355.9 \pm 0.12\%) \cdot 10^3$ ABM SEIR 300 k 20 kInfected 10 k 200 k 100 k **-** ABM



 $N_{\rm tot} = 580K$, $\rho = 0.0$, $\epsilon_{\rho} = 0.04$, $\mu = 20$, $\sigma_{\mu} = 0.0$, $\beta = 0.012$, $\sigma_{\beta} = 0.0$, algo = 2, $N_{\rm init} = 100$ $\lambda_E = 1.0, \ \lambda_I = 1.0, \ \text{rand.inf.} = \text{True}, \ N_{\text{retries}}^{\text{connect}} = 0, \ N_{\text{events}} = 5K, \ \text{event}_{\text{size}_{\text{max}}} = 10, \ \text{v.} = 1.0, \ \text{hash} = f794307311, \ \#10$ $I_{\text{max}}^{\text{ABM}} = (1.5 \pm 1.9\%) \cdot 10^3$ $R_{\infty}^{\text{ABM}} = (99 \pm 1.2\%) \cdot 10^3$ 100 k ABM $1.5 \mathrm{\ k}$ SEIR 75 k Infected 1 k 50 k 500 25 k - ABM SEIR 500 1000 500 1000 Time [days] Time [days]

 $N_{\text{tot}} = 580K$, $\rho = 0.0$, $\epsilon_{\rho} = 0.04$, $\mu = 20$, $\sigma_{\mu} = 0.0$, $\beta = 0.012$, $\sigma_{\beta} = 0.0$, algo = 2, $N_{\text{init}} = 100$ $\lambda_E = 1.0, \ \lambda_I = 1.0, \ \text{rand.inf.} = \text{True}, \ N_{\text{ret.ries}}^{\text{connect}} = 0, \ N_{\text{events}} = 10K, \ \text{event}_{\text{size}_{\text{max}}} = 50, \ \text{v.} = 1.0, \ \text{hash} = c1d125852d, \ \#10$ $I_{\text{max}}^{\text{ABM}} = (174.29 \pm 0.037\%) \cdot 10^3$ $R_{\infty}^{\text{ABM}} = (575.28 \pm 0.0036\%) \cdot 10^3$ 600 k ABM 150 k SEIR Beconered k 200 k 200 k 400 k Infected 100 k 50 k ABM SEIR 50 50 Time [days] Time |days|

 $N_{\text{tot}} = 580K$, $\rho = 0.0$, $\epsilon_{\rho} = 0.04$, $\mu = 20$, $\sigma_{\mu} = 0.0$, $\beta = 0.012$, $\sigma_{\beta} = 0.0$, algo = 2, $N_{\text{init}} = 100$ $\lambda_E = 1.0, \ \lambda_I = 1.0, \ \text{rand.inf.} = \text{True}, \ N_{\text{ret.ries}}^{\text{connect}} = 0, \ N_{\text{events}} = 10K, \ \text{event}_{\text{size}_{\text{max}}} = 20, \ \text{v.} = 1.0, \ \text{hash} = 093c82da49, \ \#10$ $I_{\text{max}}^{\text{ABM}} = (63.1 \pm 0.2\%) \cdot 10^3$ $R_{\infty}^{\text{ABM}} = (479.1 \pm 0.033\%) \cdot 10^3$ ABM 60 k SEIR 400 k Infected 50 k 20 k 200 k **-** ABM SEIR 100 100 Time [days] Time [days]

 $N_{\text{tot}} = 580K$, $\rho = 0.0$, $\epsilon_{\rho} = 0.04$, $\mu = 20$, $\sigma_{\mu} = 0.0$, $\beta = 0.012$, $\sigma_{\beta} = 0.0$, algo = 2, $N_{\text{init}} = 100$ $\lambda_E = 1.0$, $\lambda_I = 1.0$, rand.inf. = True, $N_{\text{retries}}^{\text{connect}} = 0$, $N_{\text{events}} = 10K$, event_{size_{max}} = 10, v. = 1.0, hash = f4bd9dce5b, #10 $I_{\text{max}}^{\text{ABM}} = (8.3 \pm 0.9\%) \cdot 10^3$ $R_{\infty}^{\text{ABM}} = (220.7 \pm 0.21\%) \cdot 10^3$ ABM 8 k 200 k SEIR $\operatorname{Recovered}$ Infected k 150 k 100 k

