COVID-19 Vanilla SEIR Model Dynamics (N= $10000, R_0=3.500, \beta=0.700, 1/\gamma=5.000, 1/\sigma=2.000)$ 4.0 $r_I(t)$ 3.5 -0.4 \mathscr{R}_t 3.0 0.3 Rt (Effective Reproductive Rate) $\mathscr{R}_t \equiv \left(\frac{S(t)}{N(t)}\right) \mathscr{R}_0$ rI (temporal growth rate) $r_I \equiv \gamma [\mathscr{R}_t - 1]$ 0.2 $\frac{dI}{dt} = r_I I$ 0.1 Critical (*r_I*=0.00) 0.0 Critical (Rt=1.00) 1.0 30 30 -0.10.5 0.0 - 0.0-0.280 20 40 100 20 40 60 80 100 60 0 Time[days] Time[days]