## Both RK4 and MC simulation of SIRS model a=a(t), b=1, c=0.5, d=0.1, dI=0.5, e=0.3, a=a(t), b=2, c=0.5, d=0.1, dI=0.5, e=0.3, $\sigma_S = 78.44$ — $\sigma_I = 56.99$ — $\sigma_R = 93.17$ 600 - $\sigma_S = 210.56$ - $\sigma_I = 40.96$ $\sigma_R = 129.49$ S MC category 300 I MC R MC 400 People in 200 200 $100 \, |$ NR 0 0 100 60 80 20 60 80 40 100 a=a(t), b=3, c=0.5, d=0.1, dI=0.5, e=0.3, a=a(t), b=4, c=0.5, d=0.1, dI=0.5, e=0.3, category 10 1250 $\sigma_I = 0.82$ — $\sigma_R = 6.17$ 1250 -1000 -NR People in 750 750 -500 500 250 250 0 100 20 60 80 60 80 100 40 40 Time, [Years] Time, [Years]