$beta=0.455717, sigma=0.98519, gamma=0.2386, hp=0.02071, hcr=0.0313, pc=0.07767, pd=0.04177, pcr=0.244847, s=0.74, t=0.89\\ S_0=999982, E_0=9, I_0=9, R_00, H_0=0, C_0=0, D_0=0$ ds-num_crit deterministic - C stochastic - C Days