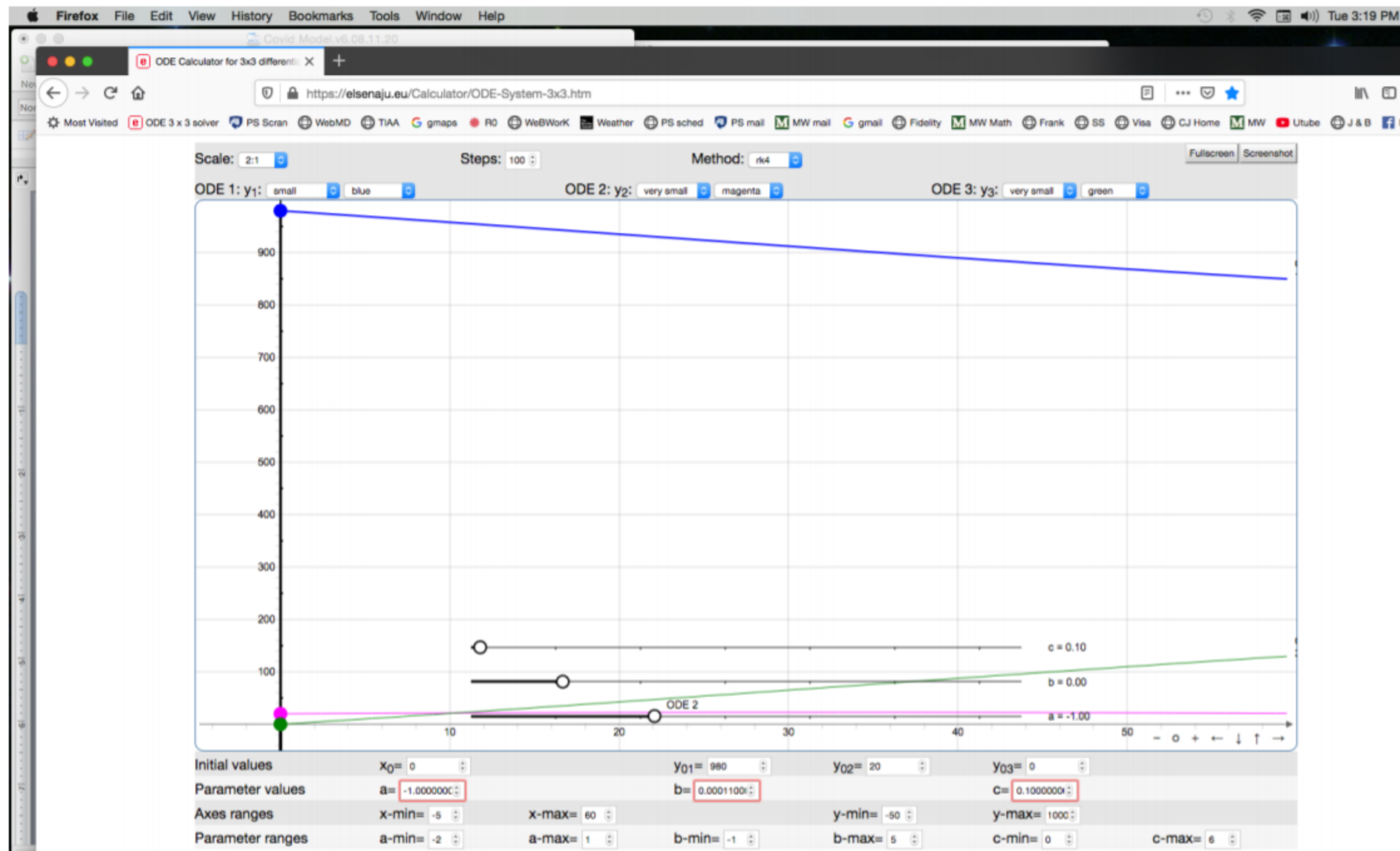
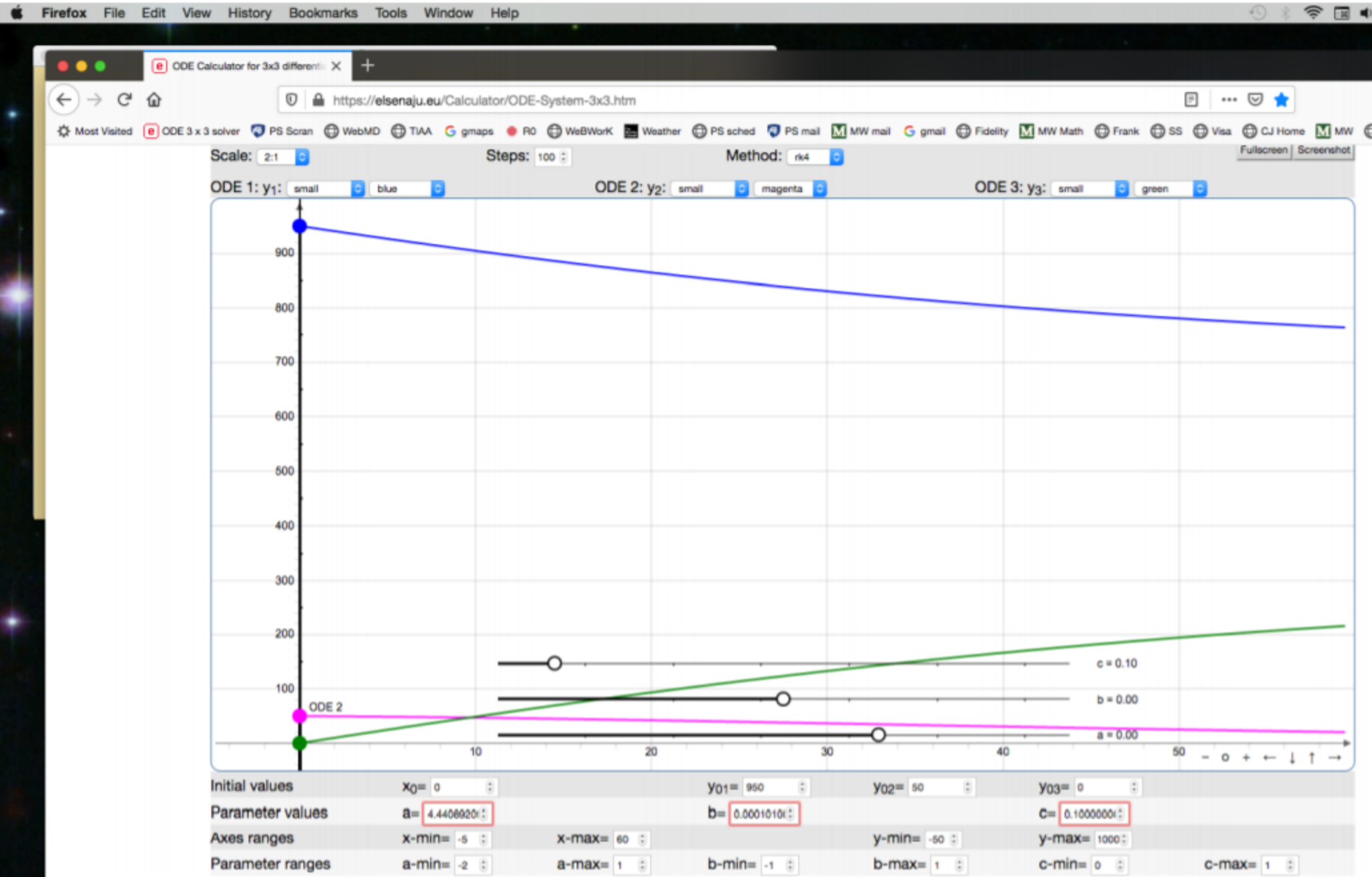


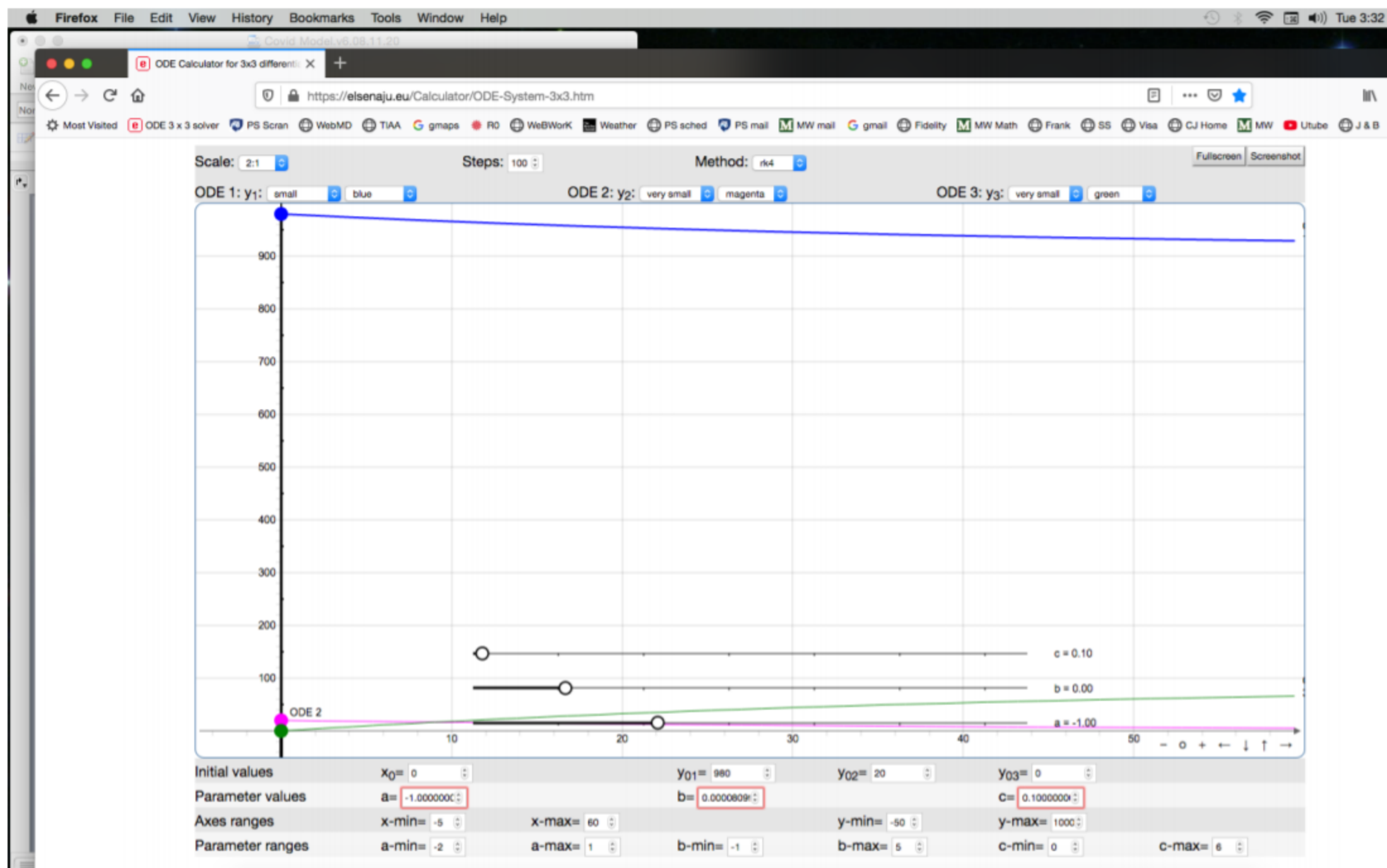
1. $R_0 = 1.1$ $N = 1000$ (population), $S(0) = 980$ (initial susceptible), $I(0) = 20$ (initial infected), $\gamma = 0.10$, $\beta = R_0 \cdot \gamma = (1.1)(0.10) = 0.11$.



II. $R_0 = 1.1$ $N = 1000$, $S(0) = 950$, $I(0) = 50$, $\gamma = 0.10$, $\beta = R_0 \cdot \gamma = 0.11$.



III. $R_0 = 0.81$ $N = 1000$ (population), $S(0) = 980$ (initial susceptible), $I(0) = 20$ (initial infected), $\gamma = 0.10$, $\beta = R_0 \cdot \gamma = (0.81)(0.10) = 0.081$.



IV. $R_0 = 0.81$ $N = 1000$ (population), $S(0) = 950$ (initial susceptible), $I(0) = 50$ (initial infected), $\gamma = 0.10$, $\beta = R_0 \cdot \gamma = (0.81)(0.10) = 0.081$.

