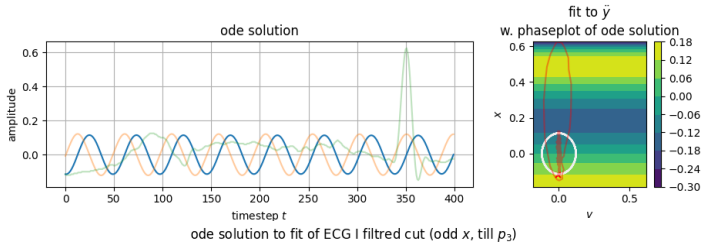
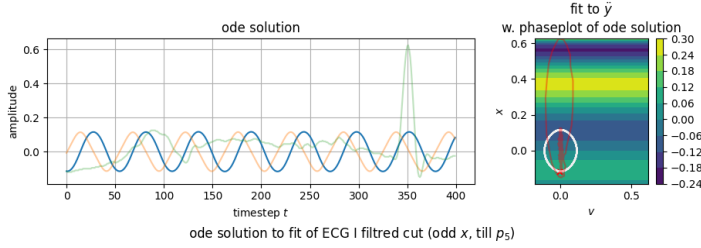


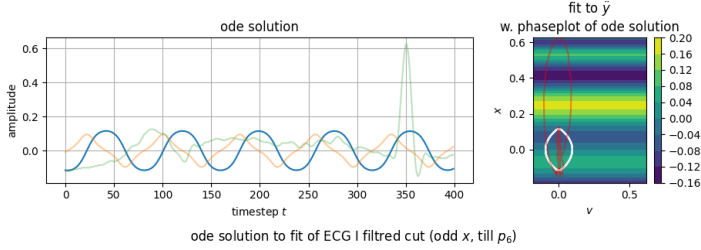
ode solution to fit of ECG I filtered cut (odd x, till p_2)



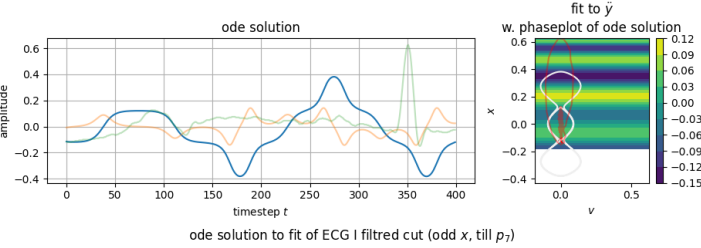
$$\begin{aligned}\dot{x} &= v \\ \dot{v} &= -\omega_0^2 x + q_3 x^3\end{aligned}$$



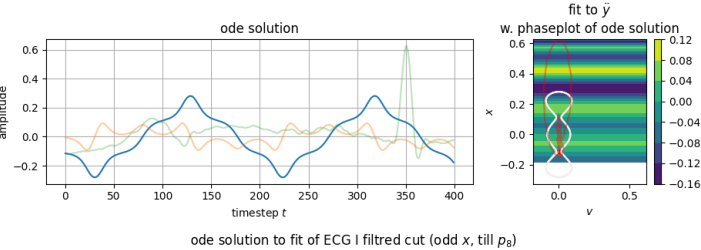
$$\begin{aligned}\dot{x} &= v \\ \dot{v} &= -\omega_0^2 x + q_3 x^3 + q_5 x^5\end{aligned}$$



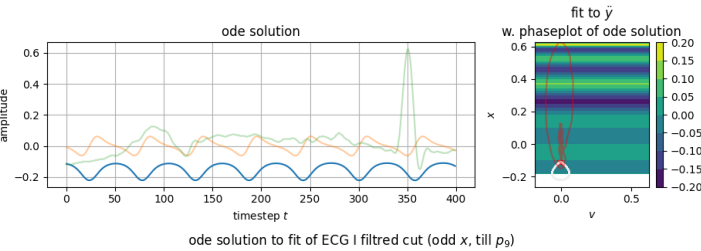
$$\begin{aligned}\dot{x} &= v \\ \dot{v} &= -\omega_0^2 x + q_3 x^3 + q_5 x^5 + q_7 x^7\end{aligned}$$



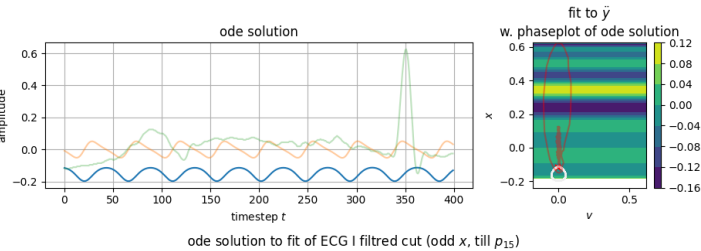
$$\begin{aligned}\dot{x} &= v \\ \dot{v} &= -\omega_0^2 x + q_3 x^3 + q_5 x^5 + q_7 x^7 + q_9 x^9\end{aligned}$$



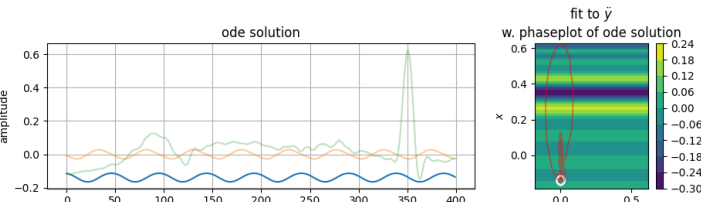
$$\begin{aligned}\dot{x} &= v \\ \dot{v} &= -\omega_0^2 x + q_3 x^3 + q_5 x^5 + q_7 x^7 + q_9 x^9 + q_{11} x^{11}\end{aligned}$$



$$\begin{aligned}\dot{x} &= v \\ \dot{v} &= -\omega_0^2 x + q_3 x^3 + q_5 x^5 + q_7 x^7 + q_9 x^9 + q_{11} x^{11} + q_{13} x^{13}\end{aligned}$$



$$\begin{aligned}\dot{x} &= v \\ \dot{v} &= \dots + q_{15} x^{15}\end{aligned}$$



$$\begin{aligned}\dot{x} &= v \\ \dot{v} &= \dots + q_{27} x^{27}\end{aligned}$$

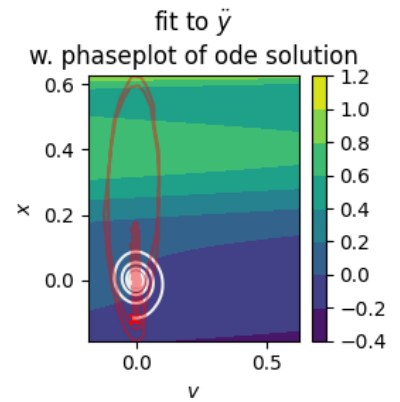
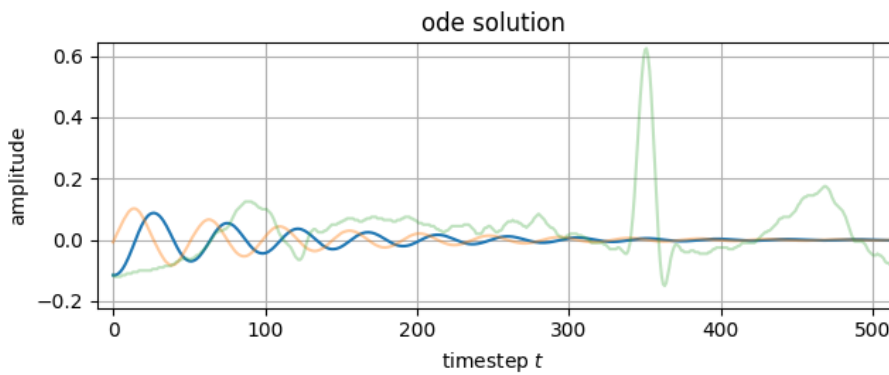
On the search for the right fit function...

$$\dot{x} = v$$

$$\dot{v} = -(\omega_0^2 + \sigma\Gamma(t; \sigma^2))x + \underbrace{q_0 v}_{= -0.1291} + q_3 x^3 + q_5 x^5 + q_7 x^7 + \dots$$

= -0.1291
negative damping

ode solution to fit of ECG I filtered cut (odd x , till p_4)



fit coefficient cut (till p_4)

