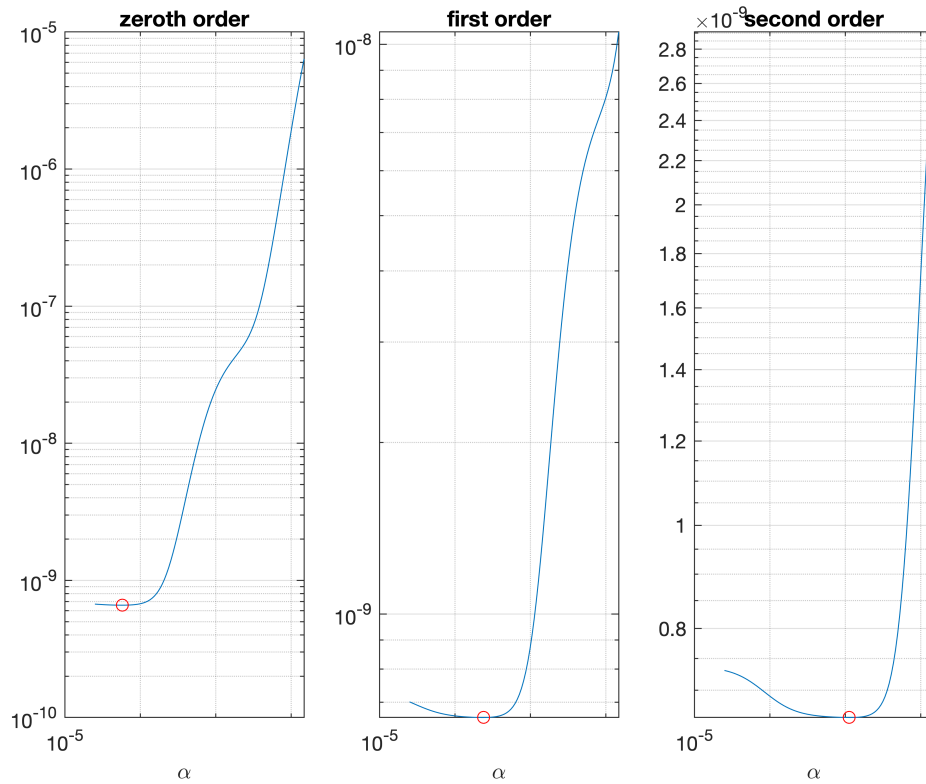


No.2 Plot the predictive errors.



Discuss how you chose α_{min} and α_{max} and how you would chose an optimal value for α by looking at the graphs.

I used the minimum and maximum values of the α obtained from zeroth, first, and second order Tikhonov regularization of both the regularized and the non regularized discrepancy principles to yield α_{min} and α_{max} respectively. The optimal value of α will be the value of α at which $g(\alpha)$ is minimum, and those are the red small circles in every plot.