

Figure 10 displays the convergence of the inner iteration for different values of the parameter  $\alpha$ . The figure is organized into a 6x4 grid of plots. The rows correspond to  $\alpha = 0.0001, 0.0005, 0.001, 0.005, 0.01, 0.05$ . The columns show the evolution of the error ratio, the number of inner iterations, and the number of outer iterations. The plots show that as  $\alpha$  increases, the convergence of the inner iteration becomes more difficult, requiring more iterations to reach the desired error ratio.