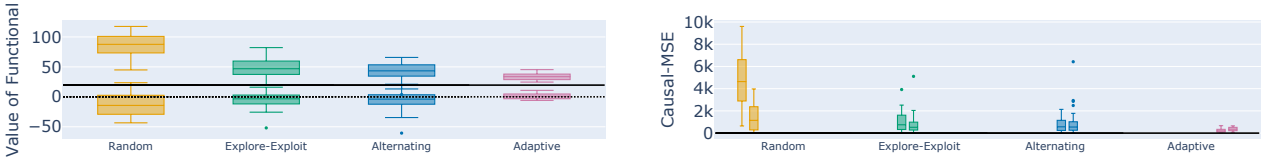

Figure 1: **Higher dimensional settings.** Results for $d_z = 5, d_x = 20, n = 250$, Value of functional (left), Causal-MSE (right). Note that the hyperparameters need to be chosen differently, i.e. the regularizer for the smoothness of the function spaces is chosen comparatively stronger $\lambda_s = 0.1$.

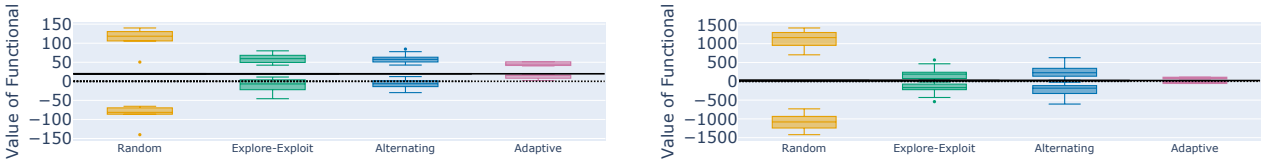

Figure 2: **Higher dimensional settings.** Results for $d_z = d_x = 20, n = 250$ (left); $d_z = d_x = 20, n = 15$ (right). Note that the hyperparameters need to be chosen differently, i.e. the regularizer for the smoothness of the function spaces is chosen comparatively stronger $\lambda_s = 0.1$.

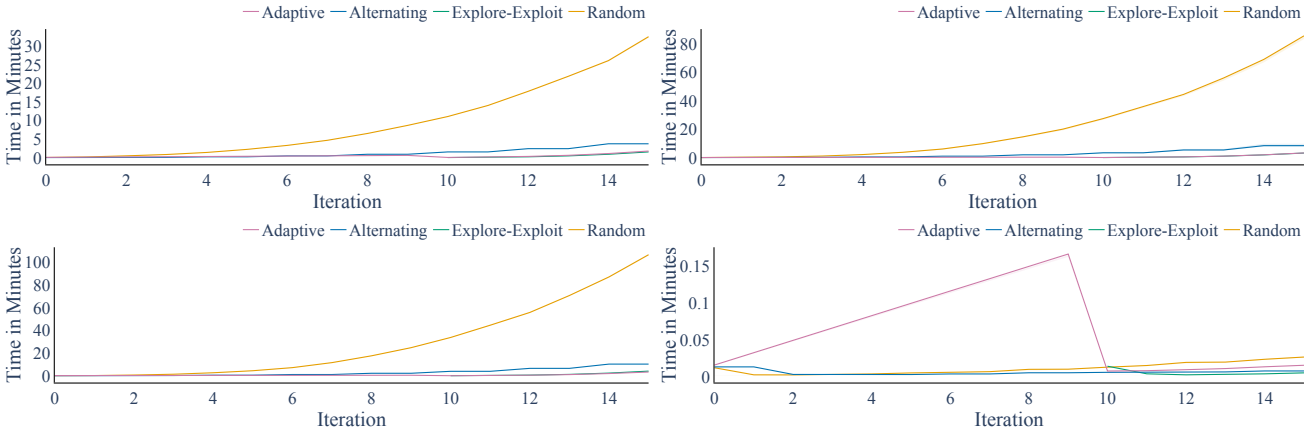

Figure 3: **Comparison of computation times on CPU.** Upper panel: $d_z = d_x = 2, n = 250$ (left), $d_z = 5, d_x = 20, n = 250$ (right); Lower panel: $d_z = d_x = 20, n = 250$ (left), $d_z = d_x = 20, n = 15$ (right).

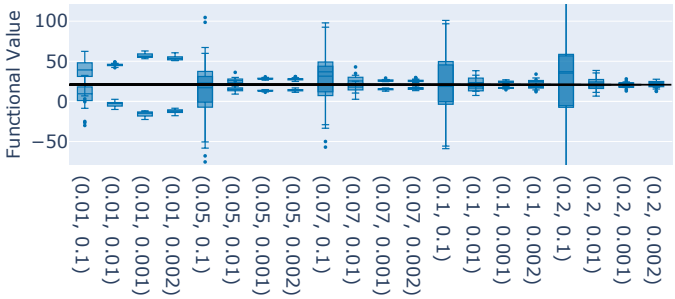

Figure 4: **Sensitivity wrt hyperparameters:** The y-axis shows the true value (black line) resp. the estimated value (boxplots) of the functional. The x-axis shows the combination of hyperparameters (λ_c, λ_s).