Figure 17

Figure 17: Diffusion-transport problem around a cylinder: lower bound of the coercivity constant $\alpha_{LB}(\mu)$ as a function of $\mu_1$.

Figure 18

Figure 18: Diffusion-transport problem around a cylinder: relative errors $\max_{\mu \in \Xi_{\text{train}}}(\Delta_{N_{\text{pr}}}^{\mu}/\|u_{N_{\text{pr}}}^{\mu}\|_X)$ and $\max_{\mu \in \Xi_{\text{train}}}(\Delta_{N_{\text{du}}}^{\mu}/\|\psi_{N_{\text{du}}}^{\mu}\|_X)$ as a function of $N_{\text{pr}}$ and $N_{\text{du}}$ for the RB approximations computed during the greedy procedure, for the primal (left) and the dual (right) problem, respectively. Here $\Xi_{\text{train}}$ is a uniform random sample of size $n_{\text{train}} = 1000$ and the RB tolerance is $\epsilon^*_{\text{tol}} = 10^{-2}$. 