In practical applications a is naturally assumed to be piecewise constant over the fine mesh (e.g., of constant value in each triangle or square of $\mathcal{T}_h$) and one purpose of the algorithm is the fast resolution of the linear system (5.3) up to accuracy $\epsilon \in (0, 1)$.

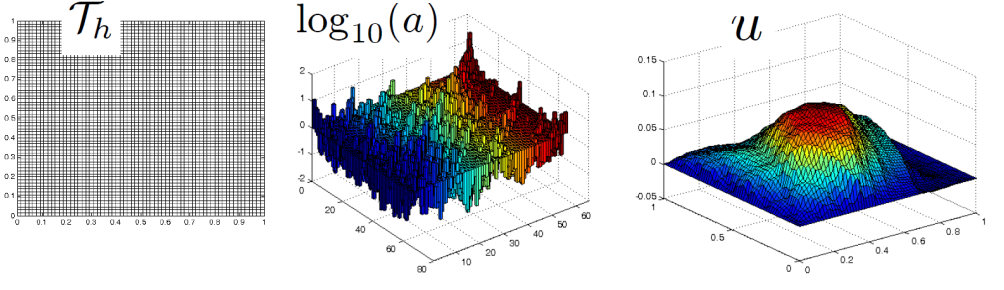

Fig. 2 *The (fine) mesh $\mathcal{T}_h$, a (in $\log_{10}$ scale), and u.*