

Constructive tractability for the Helmholtz equation

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We study the tractability in the worst case setting of the variational formulation of the second-order problem $-\Delta u + qu = f$ on $I^d = (0, 1)^d$, under homogeneous Neumann boundary conditions. Past work on the tractability of this problem has looked at the information complexity of this problem for general q , as well as the overall complexity (including combinatory cost) of the model version of this problem, in which $q = 1$. We report new results on the tractability of this problem, including the combinatory cost, for general q .

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