

WORST CASE TRACTABILITY OF LINEAR PROBLEMS IN THE PRESENCE OF NOISE: LINEAR  
INFORMATION

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We study the worst case tractability of multivariate linear problems defined on separable Hilbert spaces. Information about a problem instance consists of noisy evaluations of arbitrary bounded linear functionals, where the noise is either deterministic or random. The cost of a single evaluation depends on its precision and is controlled by a cost function. We establish mutual interactions between tractability of a problem with noisy information, the cost function, and tractability of the same problem, but with exact information.

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