

Publication

Analysis of tensor approximation schemes for continuous functions

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In this article, we analyze tensor approximation schemes for continuous functions. We assume that the function to be approximated lies in an isotropic Sobolev space and discuss the cost when approximating this function in the continuous analogue of the Tucker tensor format or of the tensor train format. We especially show that the cost of both approximations are dimension-robust when the Sobolev space under consideration provides appropriate dimension weights

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