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**Robert Cochrane\***, robcoch@umich.edu. *The Nuclear Norm and Tensor Kronecker Products.*

The nuclear norm for tensors has found much use as a convex relaxation of rank. We argue that a norm for tensors should behave well under the usual tensor product (i.e. should be a *cross norm*, as described by Schatten), as well as under the tensor Kronecker product. We show that the nuclear norm satisfies these properties, making use of what we know about the spectral norm for tensors. (Received March 05, 2021)