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Entropy of local smeared field observables ALEJANDRO SATZ, Penn State University — We re-conceptualize the usual entanglement entropy of quantum fields in a spatial region as a limiting case of a more general and welldefined quantity, the entropy of a subalgebra of smeared field observables. We introduce this notion, discuss various examples, and recover from it the area law for the entanglement entropy of a sphere in Minkowski space.

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