On the Hochschild homology of smooth superfunctions

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In this paper we extend the Hochschild-Kostant-Rosenberg-Connes theorem, stating, essentially, that the Hoschchild homology of the algebra of smooth function on a paracompact manifold is the algebra of smooth differential forms on the manifolds, to the case of Berezin-Leites-Kostant supermanifolds (graded manifolds). Namely, we show that the (graded) Hochschild homology of the superalgebra of global sections of the supermanifolds is the algebra of graded differential forms on the supermanifold.