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The Hochschild-Kostant-Rosenberg isomorphism for quantized analytic cycles. (English)

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Summary: In this article, we provide a detailed account of a construction sketched by Kashiwara in an unpublished manuscript concerning generalized Hochschild-Kostant-Rosenberg (HKR) isomorphisms for smooth analytic cycles whose conormal exact sequence splits. It enables us, among other applications, to solve a problem raised recently by Arinkin and Căldăraru about uniqueness of such HKR isomorphisms in the case of the diagonal injection. Using this construction, we also associate with any smooth analytic cycle endowed with an infinitesimal retraction a cycle class which is an obstruction for the cycle to be the vanishing locus of a transverse section of a holomorphic vector bundle.

MSC:

- 14C25 Algebraic cycles
- 14A15 Schemes; morphisms
- 14F05 Sheaves, derived categories of sheaves, etc.
- 18G99 Homological algebra (category theory)

Cited in 1 Document

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