

ALGEBRA
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*Transversality defect of two lagrangians and ternary index.
Application: Formulas of (non) additivity of signatures and of
linking forms*

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Abstract: (This is a common work with Jean Lannes)

To a pair of lagrangians in a symplectic space, we associate a symmetric bilinear form well defined up to the addition of non-degenerate forms and which is itself non-degenerate if and only if the two lagrangians are transversal. To a triple of lagrangians, we associate a ternary index which is a refinement of the Leray-Kashiwara index and which generalizes for any (commutative) ring the index defined by Wall for fields. We will explain how these two invariants can be used to compute signatures and linking forms of manifolds obtained by gluing.

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MATHEMATICS AND COMPUTER SCIENCE
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