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Announcement

Seminar on Deformation Quantization

9. 7. 2021 at 4PM CEST (Special time!)

`https://uni-wuerzburg.zoom.us/j/92529190594?pwd=WkJvR1o1QUdldUNSSjFJbHB4c0Z0dz09`

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Lagrangian fields, Calabi functions, and local symplectic groupoids

A Lagrangian field on a symplectic manifold M is a family $\Lambda = \{\Lambda_x | x \in M\}$ of pointed Lagrangian submanifolds of M. This notion is a generalization of a real Lagrangian polarization for which each Λ_x is the leaf containing x. Two Lagrangian fields Λ^s and Λ^t are called transversal if Λ^s_x intersects Λ^t_x transversally at x for every x. Two transversal Lagrangian fields determine the structure of an almost para-Kähler manifold on M. We construct a local symplectic groupoid on a neighborhood of the zero section of T^*M from two transversal Lagrangian fields on M. The Lagrangian manifold of n-cycles of this groupoid in $(T^*M)^n$ has a generating function which is the n-point cyclic Calabi function of a closed (1,1)-form on a neighborhood of the diagonal of $M \times M$ obtained from the symplectic form on M.

Invited by Stefan Waldmann