

Twisted generating functions and the nearby Lagrangian conjecture

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The stable Gauss map of a closed exact Lagrangian submanifold L in a cotangent bundle is a map g from L to U/O . The nearby Lagrangian conjecture asserts that L should be Hamiltonian isotopic to the zero-section and, in particular, g should be null-homotopic. I will introduce the notion of twisted generating functions designed to deal with Legendrians with a priori non-trivial Gauss map and explain a proof that g vanishes on all homotopy groups, using deep results of pseudo-isotopy theory.

This is based on joint work in progress with Mohammed Abouzaid, Stéphane Guillermou and Thomas Kragh.