1063-57-46Mohammed Abouzaid* (abouzaid@math.mit.edu), 77 Massachusetts Ave, Building 2, Room334, Cambridge, MA 02139. Homotopy equivalence of nearby Lagrangians.

Arnold conjectured that every exact Lagrangian in the cotangent bundle of a compact manifold is isotopic to the zero section. Fukaya-Seidel-Smith and Nadler proved, assuming the Maslov class vanishes and for a simply connected total space, that the inclusion induces an isomorphism on cohomology. Still assuming vanishing of the Maslov class, but for arbitrary fundamental groups, I will explain the proof that the inclusion is a homotopy equivalence. (Received July 25, 2010)