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Basak Gurel* (basak@math.sunysb.edu), Department of Mathematics, SUNY at Stony Brook, Stony Brook, NY 11794-3651. *The Conley conjecture near nowhere-coisotropic submanifolds.*

The Conley conjecture asserts the existence of infinitely many geometrically distinct periodic points of a Hamiltonian diffeomorphism. In this talk I will outline a proof of this conjecture for non-negative Hamiltonians supported in a neighborhood of a nowhere-coisotropic submanifold under the additional assumption that the ambient manifold admits a proper, non-negative function with no non-trivial fast periodic orbits. The idea of the proof is to construct an action selector for open geometrically bounded, symplectically aspherical manifolds, which is the main point in the proof where the aforementioned additional assumption is needed. (Received September 26, 2005)