Symplectic properties of the minimal average action

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Abstract:
In this talk I'll discuss a geometrical interpretation of the minimal average action (or Mather's \beta-function), in terms of the asymptotic 'distance' from the identity in the group of Hamiltonian diffeomorphisms. In particular, I'll describe how to construct examples of smooth fibrewise convex Hamiltonians for which the asymptotic Hofer distance from the identity gives a strict upper bound to the value at 0 of Mather's \beta-function, thus providing a negative answer to a question asked by K. Siburg. This is a joint work with Claude Viterbo.