Cube capacities

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Abstract:
We study obstructions to symplectically embedding a cube (a polydisk with all factors equal) into another symplectic manifold with boundary of the same dimension. We find sharp obstructions in many cases, including all "convex toric domains" and "concave toric domains" in C^n. The proof uses analogues of the Ekeland-Hofer capacities, which are conjecturally equal to them, but which are defined using S^1-equivariant symplectic homology. This is joint work with Jean Gutt.