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Abstract:

The string topology of Chas-Sullivan produces operations on the homology of the free loop space of orientable manifolds, and analogous structures are known to exist on the symplectic cohomology of their cotangent bundles. Work of Kragh has indicated that these groups are only isomorphic under the assumption that the manifold is Spin. The goal of this minicourse is to define twisted versions of loop space homology and symplectic cohomology for an arbitrary closed smooth manifold which are isomorphic to each other. I will also explain how to build Batalin Vilkovisky structures on the two sides which are isomorphic.

Reference: http://arxiv.org/abs/1312.3354