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Compactifying String Topology.

String topology studies the algebraic topology of the space of loops and paths in a manifold. Previous treatments of string topology describe algebraic structures on the homology of this space and operations parameterized by the moduli space of Riemann surfaces. One perspective is that these structures should be a shadow of a richer structure at the chain level and that the space parametrizing the operations should be compactified. In this talk, we describe a compact space of graphs giving string topology operations on the singular chains of the space of loops and paths which induce known operations on homology. This is joint work with Gabriel C. Drummond-Cole and Nathaniel Rounds. (Received September 18, 2012)