1016-18-168 Ezra Getzler* (getzler@northwestern.edu). Modular operads revisited.

I introduce a modification of the notion of a modular operad, which makes it especially easy to define open/closed and unoriented versions of the theory. In the new definition, the spaces of operations are representations of the mapping class groups, not of their quotient the symmetric groups. For example, the appropriate Teichmuller spaces form a (contractible) modular operad.

The following definition is modelled on that of an E-infinity space: A topological field theory is an algebra for a contractible modular operad. (Received February 10, 2006)