

1072-81-151

Anton Zeitlin* (anton.zeitlin@yale.edu), 10 Hillhouse Ave, 4th floor, Dept. of Mathematics,
New Haven, 06511. *Homotopy Relations for Topological VOA*.

We consider a parameter-dependent version of the homotopy associative part of the Lian-Zuckerman homotopy algebra and provide an interpretation of the multilinear operations of this algebra in terms of integrals over certain polytopes. The key ingredient in the construction is the consideration of nonlocal vertex operators. We explicitly prove the pentagon relation up to homotopy and propose a construction of the higher operations. (Received June 26, 2011)