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Craig C. Westerland* (westerla@math.wisc.edu), University of Wisconsin–Madison, Mathematics Department, 480 Lincoln Dr., Madison, WI 53706, and **Kate Gruher**. *String topology of classifying spaces*.

For a compact Lie group G , we study the string topology prospectrum LBG^{-TBG} and a pro-ring spectrum structure this object supports. In homology, these products are identified with the Gerstenhaber cup product in certain Hochschild cohomology algebras; these, in turn, are isomorphic via Koszul duality. If time permits, we will explain how these operations allow one to give a cosimplicial model for higher dimensional sphere topology spectra, and reinterpret these constructions using the language of multisectors in orbifold theory. (Received September 13, 2007)