

**Meeting:** 1001, Evanston, Illinois, SS 13A, Special Session on Algebraic Topology: Interactions with Representation Theory and Algebraic Geometry

1001-55-64            **Craig Westerland\*** ([cwester1@umich.edu](mailto:cwester1@umich.edu)), School of Mathematics, Institute for Advanced Study, 1 Einstein Drive, Princeton, NJ 08540. *Dyer-Lashof operations in the string topology of spheres and projective spaces.*

We compute the Dyer-Lashof operations in the string topology of several families of manifolds, specifically spheres and a variety of projective spaces. These operations, while well known in the context of iterated loop spaces, give a collection of invariants of manifolds new to string topology. Our methods employ Cohen-Jones' description of string topology in terms of Hochschild cohomology and McClure-Smith's proof of Deligne's Hochschild cohomology conjecture. (Received August 04, 2004)