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Title: From the cohomology of the pure braid group to Hopf invariants.

Abstract: The cohomology of the pure braid group gives a canonical, combinatorially rich presentation for the Poisson and thus Lie co- operads. These models then may be used to further illuminate the interplay between commutative and Lie algebras, and in particular the interplay between the cohomology ring and homotopy Lie algebra of a space. This happens at both formal and geometric levels, leading to what is perhaps the definitive treatment of generalized Hopf invariants.