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Peter Goetz* (peter.goetz@humboldt.edu), Arcata, CA 95521, and **Andrew Conner**,
Moraga, CA 94575. *Some non-Koszul algebras from rational homotopy theory.*

The McCool group, denoted $P\Sigma_n$, is the group of pure symmetric automorphisms of a free group of rank n . A presentation of the cohomology algebra $H^*(P\Sigma_n, \mathbb{Q})$ was determined by Jensen, McCammond and Meier. We prove that $H^*(P\Sigma_n, \mathbb{Q})$ is a non-Koszul algebra for $n \geq 4$, which answers a question of Cohen and Pruidze. (Received September 03, 2014)