1012-55-114　　　　**Matthew Sean Miller*** (`mmiller7@uoregon.edu`), Department of Mathematics, University of Oregon, Eugene, OR 97403-1221. *Orbit configuration spaces of lens spaces.* Preliminary report.

Configuration spaces are not homotopy invariants. The first example of two homotopy equivalent spaces that did not have homotopy equivalent configuration spaces was given by Salvatore and Longoni in 2004. Their calculations used the Massey product structure of the orbit configuration space of lens spaces. Their result can be extended to shed more light on the homeomorphism classification of lens spaces. The necessary invariant arises in the canonical A-infinity algebra structure on the cohomology of the orbit configuration space in lens spaces. (Received September 14, 2005)