1042-20-73   **Jennifer Taback** (`jtaback@bowdoin.edu`), Brunswick, ME , and **Peter N Wong***
(`pwong@bates.edu`), 3 Andrews Road, 212 Hathorn Hall, Lewiston, ME 04240. *Twisted conjugacy classes for lamplighter groups.* Preliminary report.

Given a finitely generated group π and an automorphism $\varphi \in \text{Aut}(\pi)$, the Reidemeister number $R(\varphi)$ is the number of φ-twisted conjugacy classes of elements in π and is an important homotopy invariant in topological fixed point theory. The group π is said to have property R_∞ if every $\varphi \in \text{Aut}(\pi)$ has $R(\varphi) = \infty$. It is known that the classical lamplighter groups $L_n = \mathbb{Z}_n \wr \mathbb{Z}$ have this property if and only if $2|n$ or $3|n$. In this talk, we give a geometric argument for this fact using recent work of Eskin-Fisher-Whyte on the quasi-isometric classification of Diestel-Leader graphs. (Received August 08, 2008)

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