Bernard Badzioch\* (badzioch@buffalo.edu), Department of Mathematics, University at Buffalo, SUNY, Buffalo, NY 14260, and Wojciech Dorabiala, John Klein and Bruce Williams. Smooth parametrized Reidemester torsion - a manifold approach.

Dwyer, Weiss and Williams recently gave a construction of smooth parametrized Reidemester torsion which is a secondary invariant of bundles of smooth manifolds. A very appealing aspect of their work is that it uses only machinery of homotopy theory which makes is intuitively simple. The technical side of the construction of torsion is however rather involved. The talk will explain how this construction can be simplified using some results of Waldhausen, and how this new approach can be used to compare the torsion of Dwyer-Weiss-Williams to smooth torsion invariants developed by Bismut-Lott and Igusa-Klein. (Received September 06, 2007)