

1036-55-144

Wojciech Dorabiala*, Department of Mathematics, Penn State Altoona, 3000 Ivyside Park, Altoona, PA, and **Bernard Badzioch, John Klein** and **Bruce Williams**. *Secondary Transfer and Higher Reidemeister Torsion*.

Let $p: E \rightarrow B$ be a smooth bundle of compact manifolds. We will show that if the fundamental group of B acts trivially on the rational homology of the fibers, then the bundle p gives rise to a secondary transfer map defined on the level of Whitehead spaces. This secondary transfer map can be used to give an alternative construction of the smooth torsion invariant of the bundle p defined by Dwyer, Weiss and Williams. As an application of this secondary transfer, we obtain a composition formula for the smooth torsion invariant. (Received January 21, 2008)