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Wolfgang Lück (wolfgang.lucck@him.uni-bonn.de), Holger Reich (holger.reich@fu-berlin.de), John Rognes (rognes@math.uio.no) and Marco Varisco* (mvarisco@albany.edu). Assembly maps for topological cyclic homology.

I will present the results of [arXiv:1607.03557], in which we use assembly maps to study the topological cyclic homology of group algebras. For any finite group, we prove that the assembly map for the family of cyclic subgroups is an isomorphism on homotopy groups. For infinite groups, we establish pro-isomorphism, split injectivity, and rational injectivity results, as well as counterexamples to injectivity and surjectivity. In particular, for hyperbolic groups and for virtually finitely generated abelian groups, we show that the assembly map for the family of virtually cyclic subgroups is split injective but in general not surjective. (Received September 12, 2016)