1014-13-874 Alfred Geroldinger\* (alfred.geroldinger@uni-graz.at), Heinrichstr. 36, Institute of Mathematics, 8010 Graz, Austria. On the application of group algebras to zero-sum problems.

Let G be a finite abelian group and R a commutative ring with unit element. It is well-known that the group algebra R[G] is a powerful tool in the investigation of zero-sum sequences over G. We briefly sketch some basic ideas and present some new results (joint work with W. Gao). (Received September 26, 2005)