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- Werner Bley and Henri Johnston, Computing generators of free modules over orders in group algebras, J. Algebra 320 (2008), no. 2, 836–852. MR MR2422318
- Jon F. Carlson and Graham Matthews, Generators and relations for matrix algebras, J. Algebra 300 (2006), no. 1, 134–159. MR MR2228640
- [3] Alexander Chistov, Gábor Ivanyos, and Marek Karpinski, Polynomial time algorithms for modules over finite dimensional algebras, Proceedings of the 1997 International Symposium on Symbolic and Algebraic Computation (Kihei, HI) (New York), ACM, 1997, pp. 68–74 (electronic). MR MR1809971
- [4] David J. Green, Gröbner bases for p-group algebras, 2009.
- [5] Edward L. Green, Lenwood S. Heath, and Craig A. Struble, Constructing homomorphism spaces and endomorphism rings, J. Symbolic Comput. 32 (2001), no. 1-2, 101–117, Computer algebra and mechanized reasoning (St. Andrews, 2000). MR MR1840387 (2002g:16019)
- [6] Timo Hanke, The isomorphism problem for cyclic algebras and an application, ISSAC 2007, ACM, New York, 2007, pp. 181–186. MR MR2396201 (2009d:16026)
- [7] Gábor Ivanyos and Klaus Lux, Treating the exceptional cases of the MeatAxe, Experiment. Math. 9 (2000), no. 3, 373–381. MR MR1795309 (2001j:16067)
- [8] Graham Matthews, Computing Generators and Relations for Matrix Algebras, PhD Thesis, University of Georgia, 2004.
- [9] Gabriele Nebe and Allan Steel, *Recognition of division algebras*, J. Algebra **322** (2009), no. 3, 903–909.
- [10] Bernd Souvignier, Decomposing homogeneous modules of finite groups in characteristic zero, J. Algebra 322 (2009), no. 3, 948–956.
- [11] John Voight, Identifying the matrix ring: Algorithms for quaternion algebras and quadratic forms, 2010.

 [12] Katsushi Waki, Calculation of direct summands of FG-modules, Sci. Rep. Hirosaki Univ. 44 (1997), no. 2, 193–200. MR MR1619001 (99c:16006)