1052-55-132 **William G Dwyer*** (dwyer.1@nd.edu), Department of Mathematics, University of Notre Dame, Notre Dame, IN 46556. *The many faces of the Bockstein.* Preliminary report.

This is joint work with J. Greenlees. We look at the problem of classifying differential graded algebras (DGAs) over the integers whose homology ring is isomorphic to an exterior algebra over $\mathbb{F}_p$ on one generator of degree -1. (The generator is a type of generalized Bockstein operator.) Two DGAs are (directly) equivalent if there is a DGA map between them inducing an isomorphism on homology. The conclusion is that, with one exception, equivalence classes of these DGAs correspond bijectively to totally ramified extensions of the field of p-adic rationals. (Received August 25, 2009)