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William T Ashby* (tashby@csuniv.edu). *A Homological Approach to Graded Principal Ideal Domains*. Preliminary report.

In the discussion of Bauer groups and the cohomology of graded rings, the topic of commutative rings often arises. Specifically, certain results arise regarding graded principal ideal domains and graded Dedekind domains. Motivated by this discussion, this paper uses a homological approach to achieve certain results about the structure of graded principal ideal domains. (Received September 01, 2000)