Hans E Nordstrom* (nordstro@up.edu), Department of Mathematics, University of Portland, 5000 N. Willamette BLVD, Portland, OR 97111. Torsion-theoretic representations of generalized Weyl algebras. Preliminary report.

We define the torsion-theoretic analogues of weight modules over an associative, unital, noncommutative ring R. Our principal result describes the representations of the generalized Weyl algebra $R[d, u, \sigma, a]$ from the data of the base ring R. (Received August 09, 2008)