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Marcos Zyman\* (mzyman@bmcc.cuny.edu), 199 Chambers St., New York, NY 10007, and Stephen Majewicz, 2001 Oriental Boulevard, Brooklyn, NY 11235. Localization and extraction of roots in nilpotent R-powered groups. Preliminary report.

Let R be a binomial ring. A nilpotent group which comes equipped with an R-action, and satisfies certain desirable axioms is termed an R-powered nilpotent group. I will discuss some extensions of the theories of localization and radicable nilpotent groups to the broader class of nilpotent R-powered groups. If  $\pi$  is a prime in R, I will define such local notions as  $\pi$ -monomorphisms and  $\pi$ -epimorphisms, and explain how they relate to root extraction in nilpotent R-powered groups. (Received September 22, 2009)