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Louiza Fouli* (lfouli@math.nmsu.edu), Department of Mathematical Sciences, New Mexico State University, Las Cruces, NM 88003, and **Bruce Olberding**. *Reductions over rings with finite residue fields*. Preliminary report.

Let R be a Noetherian local ring with residue field k and let I be an ideal of R . When k is an infinite field then I either has infinitely many proper reductions or I is the only reduction of itself. However, when k is a finite field proper reductions may not exist. We consider the case of one-dimensional local Cohen-Macaulay rings with finite residue field. We investigate conditions under which one can guarantee the existence of principal reductions and conditions that guarantee the absence of such reductions. This is joint work with Bruce Olberding. (Received February 05, 2014)