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**K Alan Loper\*** (loper.4@osu.edu), 1179 University Drive, Newark, OH 43055, and **William Heinzer, Bruce Olberding** and **Hans Schoutens**. *Quadratic transforms of regular local rings*. Preliminary report.

We study the structure of chains of quadratic transforms of regular local rings. Abhyankar showed that if we start with a two-dimensional ring then the union of a chain is always a valuation domain. This is not true in dimensions higher than two. We investigate how to get a valuation domain in this case and what structure we do get in the case that we not get a valuation domain. (Received February 10, 2014)