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William Heinzer, K. Alan Loper and Bruce Olberding* (bruce@nmsu.edu), Department of Mathematical Sciences, Las Cruces, NM 88003-8001, and **Matt Toeniskoetter**. *The tree of quadratic transforms of a two-dimensional regular local ring.*

Let D be a two-dimensional regular local ring. The set of all two-dimensional regular local rings birationally dominating D is a tree ordered by inclusion. Each ring in this tree, the *quadratic tree* of D , can be obtained by a sequence of iterated quadratic transforms, a construction that has a natural interpretation involving the blow up at a maximal ideal. The valuation overrings that dominate D can also be interpreted using this tree. We discuss topological and geometric properties of the quadratic tree, with emphasis on the rings obtained by intersecting rings from subsets of the tree. (Received August 27, 2021)