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Bruce Olberding* (bruce@nmsu.edu), Department of Mathematical Sciences, Las Cruces, NM 88011. *Unmixedness for finitely generated algebras over zero-dimensional rings*. Preliminary report.

We discuss how several foundational properties for the theory of finitely generated algebras over a field hold if the field is replaced by a commutative ring R of Krull dimension 0. The talk can be summarized with the slogan, “A complete intersection over a zero-dimensional ring is Cohen-Macaulay.” In the non-Noetherian context, this is a slogan rather than a theorem since both “complete intersection” and “Cohen-Macaulay” admit multiple interpretations. We unpack this slogan and show that a number of fundamental properties hold regardless of whether the base ring R is Noetherian. (Received July 31, 2020)