

# ISOLATED QUOTIENT SINGULARITIES IN POSITIVE CHARACTERISTIC

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Canonical surface singularities already appeared in Klein's lectures on the icosahedron at the end of the 19th century as invariant rings for the actions of the binary polyhedral groups. Since then, also higher-dimensional complex isolated quotient singularities have been shown to satisfy many nice properties, such as, for example, rigidity in dimension at least 3. In positive characteristic, most of these classical properties fail for general quotient singularities. In this talk, I will explain how to extend the classical picture to isolated quotient singularities by linearly reductive group schemes in positive characteristic. This is joint work with C. Liedtke and Y. Matsumoto.