

A linearization technique in infinite dimensional algebraic geometry*Clemens Bruschek** (Univ. Wien), *Herwig Hauser* (Univ. Wien)

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It is shown how a selection of prominent results in singularity theory and differential geometry can be deduced from *one* theorem, the Rank Theorem for maps between spaces of formal power series. This is an algebraic refinement of the Rank Theorem in [1] which generalizes the well-known result that analytic maps between finite dimensional \mathbb{C} -vector spaces with Jacobian of locally constant rank can be linearized locally by automorphisms of source and target.

- [1] H. HAUSER, G. MÜLLER: A rank theorem for analytic maps between power series spaces. *Publ. Math. I.H.E.S.* **80** (1994), 95-115.