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A criterion for the equivalence of formal singularities. (English summary)

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The authors prove a generalization of a theorem of S. D. Cutkosky and H. Srinivasan [*Amer. J. Math.* **115** (1993), no. 4, 789–821; [MR1231147 \(94h:14005\)](#)]. Intuitively, they prove the following stability assertion. Let the first cotangent cohomology $T^1(R/S)$ of $R = S[[x_1, \dots, x_n]]/I$ be annihilated by some power of an ideal $\mathfrak{a}$. Then any $R = S[[x_1, \dots, x_n]]/J$ such that generators of J and relations among the generators are congruent to generators and relations of I modulo a sufficiently high power of $\mathfrak{a}$ is right equivalent to R .

In the special case when S is a field k and $\mathfrak{a} = \mathfrak{m} = (x_1, \dots, x_n)$, they deduce the algebraizability of singularities with $\dim_k T^1(R/S) < \infty$. In the final part of the paper analogous results are proved for finitely generated modules.

Reviewed by [Zbigniew Hajto](#)

References

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Note: This list reflects references listed in the original paper as accurately as possible with no attempt to correct errors.