

The Łojasiewicz exponent of a generic singularity depends only on its Newton diagram

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We prove that in order to find the value of the Łojasiewicz exponent $\iota(f)$ of a Kouchnirenko non-degenerate holomorphic function $f: (\mathbb{C}^n, 0) \rightarrow (\mathbb{C}, 0)$ with an isolated singular point at the origin, it is enough to find this value for any other (possibly simpler) function $g: (\mathbb{C}^n, 0) \rightarrow (\mathbb{C}, 0)$, provided this function is also Kouchnirenko non-degenerate and has the same Newton diagram as f does. We also state a more general problem, and then reduce it to a Teissier-like result on (c)-cosecant deformations, for formal power series with coefficients in an algebraically closed field.
