



Blow-analytic equivalence of two variable real analytic function germs

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Résumé en anglais

Blow-analytic equivalence is a notion for real analytic function germs, introduced by Tzee-Char Kuo in order to develop real analytic equisingularity theory. In this paper we give complete characterisations of blow-analytic equivalence in the two dimensional case, in terms of the real tree model for the arrangement of real parts of Newton-Puiseux roots and their Puiseux pairs, and in terms of minimal resolutions. These characterisations show that in the two dimensional case the blow-analytic equivalence is a natural analogue of topological equivalence of complex analytic function germs. Moreover, we show that in the two-dimensional case the blow-analytic equivalence can be made cascade, and hence satisfies several geometric properties. It preserves, for instance, the contact order of real analytic arcs. In the general n -dimensional case, we show that a singular real modification satisfies the arc-lifting property.

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