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Singularities of analytic dynamical systems with 1-summable normalizing transformation

A central problem in local dynamics is the equivalence problem: when are two systems locally equivalent under a change of coordinates? In the neighborhood of a singular point, representatives of equivalence classes could be given by normal forms. But, very often, the changes of coordinates to normal form diverge. In this talk, we will discuss the case of singularities for which the normalizing transformation is 1-summable, thus allowing to provide moduli spaces. We will explain the common geometric features of these singularities, and how the study of the unfolding of these singularities allows understanding the singularities themselves. We will also present examples of moduli spaces for generic 1-parameter families unfolding such families.