Equivalence of Cauchy-Riemann manifolds and multisummability theory

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Abstract: We prove that if two real-analytic hypersurfaces in $\mathbb{C}^2$ are equivalent formally, then they are also $C^\infty$ CR-equivalent at the respective point. As a corollary, we prove that all formal equivalences between real-algebraic Levi-nonflat hypersurfaces in $\mathbb{C}^2$ are algebraic (in particular are convergent). The result is obtained by using the recent CR-DS technique, connecting degenerate CR-manifolds and Dynamical Systems, and employing subsequently the multisummability theory of divergent power series used in the Dynamical Systems theory. This is a joint work with I. Kossovskiy and B. Lamel.