

Martin Kolář: Local equivalence and symmetries of Levi degenerate hypersurfaces in \mathbb{C}^2

Abstract:

We will describe a construction of normal forms for Levi degenerate hypersurfaces of finite type in \mathbb{C}^2 , which extends the classical construction of Chern and Moser. Using a convergence theorem of Baouendi, Ebenfelt and Rothschild, we obtain as a consequence a complete set of local invariants, giving an explicit solution to the problem of local biholomorphic equivalence. Applications to the determination of possible local symmetries of such hypersurfaces will be described.