Daniel Barlet: On meromorphic equivalence relations

Abstract: We shall present a new point on view on meromorphic equivalence relations. We introduce the space of finite type n-cycles (closed analytic n-cycles with finitely many irreducible components) of a given finite dimensional complex space and a natural topology on this space, in order to avoid the "regularity" condition for analytic families of cycles introduced in D. Mathieu, "Universal reparametrization of a family of cycles: a new approach to meromorphic equivalence relations", Ann. Inst. Fourier 50 (2000), and also the notion of "escape to infinity" (set theoretically and topologically) which are incoded in a natural way in our framework. Then the results on semi-proper quotient for meromorphic equivalence relations are stronger and much simpler to state and to use than in the previous works of H. Grauert, B. Siebert, and D. Mathieu.