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Abstracts of Short Communications and Posters

Section:

9. Ordinary Differential Equations and Dynamical Systems

1991 MS Classification: 34

Glutsuk, Alexei, Independent University of Moscow, Russia:

Stokes Phenomena via generic perturbation

For a generic deformation of a linear differential equation with a nonresonant irregular singularity we show that Stokes operators of the nonperturbated equation are limits of transition operators between appropriate monodromy eigenbases in the solution space of the perturbated equation. Similar statements are proved for the nonlinear Stokes phenomena: for Martinet - Ramis orbital analytic classification invariants of germs of two-dimensional holomorphic vector fields with saddle-node singularity (i. e., such that the correspondent linearization operator has exactly one zero eigenvalue) and for Ecalle - Voronin analytic classification invariants of germs of one-dimensional conformal maps with identity linear part.