

Abstract

We study the isomonodromy deformation equations for the $n \times n$ system of first order meromorphic linear ordinary differential equations with two second order poles. We study the asymptotic behaviour of the solutions of the nonlinear isomonodromy equations at a critical limit, and give a parameterization of almost all the solutions via the asymptotic parameters. We then derive the explicit formula for the Stokes matrices of the associated linear system in terms of the asymptotic parameters.