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Geometric approach to discrete isomonodromy transformations

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Abstract

We study discrete isomonodromy transformations of discrete equations; discrete Painlevé equations provide an important example of such transformations. In this talk, we approach the discrete equations geometrically via vector bundles on the Riemann sphere. This approach clarifies many features of isomonodromy transformations (such as spaces of solutions, tau functions, and symmetries).