

Segre surfaces for the Painlevé equations

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In this talk, we consider a six parameter family of affine Segre surfaces embedded in \mathbb{C}^6 . For generic values of the parameters, this family is associated to the q -difference sixth Painlevé equation. We show that different limiting forms of this family give Segre surfaces that are isomorphic as affine varieties to the the monodromy manifolds of each Painlevé differential equation.