

On the relation between the full Kostant-Toda lattice and matrix orthogonal polynomials

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Resumo

In this work we characterize a full Kostant-Toda system in terms of a family of matrix polynomials orthogonal with respect to a complex matrix measure. In order to study the solution of this dynamical system we give explicit expressions for the resolvent functional and we also obtain, under some conditions, a representation of the vector functionals associated with this system. Joint work with A. Branquinho and A. Foulquié Morenod.