

On Darboux Integrable Semi-Discrete Hyperbolic Systems of Exponential Type

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Abstract

In this work, firstly we give the definition of Darboux integrability based on notions of x and y -integrals. Then we formulate conjecture on Darboux integrability for semi-discrete hyperbolic differential systems of exponential-type. The proof of the conjecture will be discussed for two dimensional systems.