

Hirota-Kimura discretizations of integrable systems with quadratic vector fields: theory and mathematical experiments

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I will give an overview of the integrability of the Hirota-Kimura discretization method applied to algebraically completely integrable systems with quadratic vector fields. Along with the description of the basic mechanism of integrability (Hirota-Kimura bases), I will discuss the computational and experimental issues of the integrability proofs.