Elliptic soliton equations and Sato Grassmannian

- Background
- Nonlinear Schrödinger hierarchy
- Factorization problem
- Embedding to Sato Grassmannian

rational

- Landau-Lifshitz hierarchy
- Factorization problem
- Embedding to Sato Grassmannian

elliptic

(• Other examples)

Based on : nlin.SI/0312016 (review)
etc...

1. Background

Sato's thesis (??) ('81 ~)

Any soliton equation can be described as a simple dynamical system on an ∞-dim. Grassmann manifold (universal Grassmannian).

This has been confirmed for many soliton equations. However, almost all of them are equations with a rational spectral parameter.

Question What about equations with an elliptic spectral parameter, or equations some how formulated with elliptic functions?