Friday, October 3rd (at 4.00pm, UK time)

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Title: Classical elliptic integrable systems and their 1+1 field analogues.

ABSTRACT

We briefly review main examples of elliptic integrable systems including Calogero-Moser system, its spin generalization, integrable tops and Gaudin type models. Then we describe their field generalizations through the Zakharov-Shabat U-V pairs and ultralocal or non-ultralocal classical r-matrix structure of Maillet type. For example, the elliptic top is extended to the Landau-Lifshitz model.

These type models are also described using R-matrices satisfying the associative Yang-Baxter equation. This allows to include into consideration a wide class of trigonometric and rational models. Next, we proceed to relativistic systems including the Ruijsenaars-Schneider model, relativistic tops, classical spin chains and classical Ruijsenaars chains.

Their field versions are described by the semi-discrete Zakharov-Shabat equations and quadratic r-matrix structures.
