

New integrable systems from known ones via anyon parameterization

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Abstract:

It is known that starting from a known integrable system, one may use many kinds of methods to get new integrable systems, for instance, via different types of transformations including the Miura transformation, hodograph transformation and so on. In this report we propose a new method to get new integrable systems via the anyon parameterization procedure. Especially, taking the KdV equation as a seed example, various new integrable systems are obtained.