

Friday, February 2nd (at 4.00pm, UK time)

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Title: Nonabelian integrable systems and their Hamiltonian structures.

ABSTRACT

Integrable nonabelian systems are equations of motion in which the field variables take values in a nonabelian algebra, as a matrix one. As their classical counterparts, we can describe their structure and understand their integrability in terms of Poisson brackets and derive the hierarchy from their biHamiltonian structure.

I will describe some examples for differential-difference systems obtained in a joint work with J.P. Wang (Nonlinearity 2021) and propose a geometric interpretation of the Hamiltonian structure in terms of a suitable generalization of the Poisson bivector (CMP 2022).
