Multi-Poisson/symplectic structure of completely integrable systems

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ABSTRACT

Poisson structure is more general than symplectic structure and Jacobi identities are by no means trivial. All of these culminated in the theory of Magri on the multi-Hamiltonian structure of completely integrable systems. Everything about Poisson structure is encoded in the Lichnerowicz complex and the fact that it is exact enables us to discuss all properties of Poisson structure using cohomology theory.