

Algebraic structures for the double ramification hierarchy

Wednesday, June 7, 2017 9:30 AM (40 minutes)

The double ramification (DR) hierarchy is a system of evolutionary PDEs with one spatial variable associated to an arbitrary cohomological field theory. The class of DR hierarchies includes a lot of important hierarchies such as the KdV, Gelfand-Dickey, ILW, Toda hierarchies. Remarkably, the DR hierarchies are endowed with a lot of algebraic structures that can be described very explicitly. I will discuss the recursion operators, quantization, tau-structure and, in the case of conformal cohomological field theories, conjectural bi-Hamiltonian structure.

The talk is closely related to the subsequent talk of Paolo Rossi who will, in particular, speak about the conjectural equivalence between the DR hierarchy and the hierarchy of topological type.

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