Mathematics > Quantum Algebra

Poisson Ideals in Cluster Algebras and the Spectra of Quantized Coordinate Rings

Sebastian Zwicknagl

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We describe the Poisson ideals and attached symplectic geometry of a cluster algebra with compatible Poisson structure. We apply these results to determine the spectrum of a quantum cluster algebra. As an application, we describe the topology on the spectra of quantized coordinate rings such as quantum matrices and the quantized function algebra of the general linear group.

Comments:	The proof of the main theorem is incomplete, and the paper has been replaced with two more specific papers "Cluster Algebras, Symplectic Leaves and Quantum Groups" at arXiv:1210.5825 and "Poisson and quantum geometry of acyclic cluster algebras " at arXiv:1210.5824
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