

Quantum KdV, quasimodular forms, and shifted symmetric functions

Monday, June 3, 2024 2:30 PM (50 minutes)

I will review recent progress in the study of the spectrum of the quantum double ramification hierarchy associated with the trivial cohomological field theory, i.e., of the quantum KdV hierarchy in its first Poisson structure. A remarkable relation to quasimodular forms naturally suggests a conjecture for the expansion to all orders of the spectrum, and we verify the conjecture explicitly at first order. Based on joint work with Jan-Willem van Ittersum and work in progress with Jan-Willem van Ittersum and Don Zagier.

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