

Global spectral curves from Dubrovin’s superpotential

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It has been shown that the correlation functions of a semi-simple Cohomological Field Theory can be computed by a topological recursion procedure applied to a local spectral curve, i.e. a curve composed of a finite disconnected union of small discs. For many applications, it is desirable to be able to build a global cover of the Riemann sphere such that this local spectral curve is just a set of neighborhoods of the ramification points of the cover. In this talk, I show that, under some assumptions, the cover defined by Dubrovin’s Landau-Ginzburg superpotential provides such a global spectral curve.

This is a joint work with Dunin-Barkowski, Norbury, Popolitov and Shadrin.

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