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Props of ribbon graphs, involutive Lie bialgebras and moduli spaces of curves

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We discuss a new and surprisingly strong link between two previously unrelated theories: the theory of moduli spaces of curves (which, according to Penner, is controlled by the ribbon graph complex) and the homotopy theory of operads (controlled by ordinary graph complexes with no ribbon structure, introduced first by Kontsevich). The talk is based on a joint work with Thomas Willwacher.

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