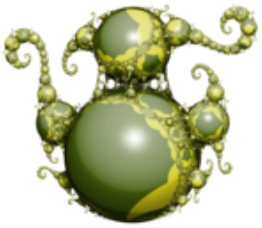

ID de Contribution: **28** Type: **Non spécifié**

Isomonodromic deformations, exact WKB analysis and Painlevé 1

mardi 27 mai 2025 11:30 (1 heure)

In this talk, I will present how to obtain explicit formulas for the Hamiltonians and Lax matrices arising in isomonodromic deformations of generic rank 2 connections. Then, I will present how to proceed in the reverse way, i.e. how to build formal wave matrices solutions to a Lax system from a classical spectral curve using Topological Recursion. Finally I will discuss on the Painlevé 1 example, how one can upgrade formal power solutions to analytic solution known as tritronquées solutions of Painlevé 1 and how to define exact WKB on the formal wave matrix to formulate a corresponding Riemann-Hilbert problem via the characterization of the Stokes matrices.

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