ID de Contribution: **2**   Type: **Non spécifié**

A Topological Recursion Algorithm for WKB Solutions

mercredi 17 décembre 2025 14:30 (1 heure)

We develop a version of the Topological Recursion (TR) algorithm for WKB solutions of polynomial linear differential equations dependent on a parameter $\hbar$, focusing on cases where the associated spectral curve admits only simple ramification points. This new algorithm hinges on the geometric description of a specific, universally defined orbit of an infinite-dimensional Lie group acting on an infinite-dimensional vector space of Laurent series. By taking the intersection of this orbit with a carefully chosen complementary space to its tangent space, we obtain a unique formal WKB solution for the given differential equation.

Orateur: Mme REN, Irene (IHES)