ID de Contribution: **3**   Type: **Non spécifié**

Main Lecture 2: Introduction to Resurgence via Wall-crossing Structures (2/4)

lundi 5 juin 2023 11:30 (1 heure)

I'll introduce an alternative approach to the classical Borel-Écalle resummation method of factorially divergent series based on the notion of an analytic wall-crossing structure introduced by Yan Soibelman and myself in arXiv: 2005.10651.

Instead of working in the Borel plane, one defines a holomorphic bundle over a small disc directly in the original coordinate, by the gluing of the trivialized bundle on finitely many overlapping sectors by gauge transformations which are convergent series in exponentially small terms. The global geometric object is a bundle over a neighborhood of a wheel of 1-dimensional torus orbits in a higher-dimensional toric variety. I'll illustrate the general theory by several examples, including exponential integrals, a generalization to closed 1-forms, including Stirling formula, as well as the quantum dilogarithm.

Orateur: KONTSEVICH, Maxim (IHES)