

SEMINARIO

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Iterated convolution of resurgent functions

Abstract: Resurgent analysis originates with the books of J. Ecalle "Les fonctions réurgentes". His theory on the resurgent functions gives effective tools to analyze Stokes phenomena. However, in general, it is not so easy to show the resurgence property of formal series solutions of differential or difference equations because of the complexity of the singularity structure of their Borel transform. In this talk, we will discuss the singularity structure of iterated convolution products of resurgent functions and how their singular points are generated by the convolution product. We further develop an iteration method on the space of resurgent functions.

This talk is partially based on a joint work with David Sauzin.

Seminario A121

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