## **Eurostrings 2022, Lyon**



ID de Contribution: **76**Type: **Non spécifié** 

## **BPS Invariants from Resurgence of Topological String Theory**

jeudi 28 avril 2022 11:45 (25 minutes)

The topological string free energy is given by an asymptotic series in the topological string coupling. I will first discuss how a finite difference equation can be derived from this asymptotic series for a class of Calabi-Yau backgrounds and how analytic solutions of these equations can be found. These solutions provide access to the non-perturbative structure and strong topological string coupling expansion. I will then discuss how the Borel transform can be obtained in these cases and how the Stokes jumps of the Borel transform contain the information of BPS invariants of the underlying Calabi-Yau geometry as well as their wall-crossing structure. I will furthermore discuss topological string S-duality in this context. This is based on own as well as joint work in collaboration with Iván Tulli, Jörg Teschner and Arpan Saha.

## Type of contribution

Contributed Talk only

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