

## De Sitter vacua at leading order

*mercredi 29 novembre 2023 11:00 (30 minutes)*

In this talk I will present the first explicit examples of de Sitter vacua as envisioned by Kachru, Kallosh, Linde and Trivedi 20 years ago, in the tree level approximation in both the string loop and  $\alpha'$  expansion. I will begin by summarizing the construction of all the relevant components, from Calabi-Yau orientifolds, and a mechanism to generate exponentially small superpotentials from quantized fluxes, to the explicit stabilization of hundreds of Kahler moduli via non-perturbative D3-instantons on cycles that satisfy Witten's rigidity conditions, and the construction of warped Randall-Sundrum throats that can host SUSY breaking uplifts. Genuinely  $\mathcal{N} = 1$  corrections in the  $\alpha'$  and  $g_s$  expansions are potentially important but are not fully known, and I will comment on robustness against these.

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**Classification de Session:** :