



Du
24
FÉV.
2023

16h30
-
18h00

ÉQUATIONS DIFFÉRENTIELLES MOTIVIQUES ET AU-DELÀ

E-functions and geometry

IHP201

INSCRIPTION

After recalling the conjectural relation between G-functions and periods of families of algebraic varieties, I will explain why every exponential period function of the form $\int_{\sigma} e^{-f} \omega$, where f is a regular function on an algebraic variety X defined over the field of algebraic numbers, ω is an algebraic differential form on X , and σ is a rapid decay cycle on $X(\mathbb{C})$, is a linear combination of E-functions "with monodromy" with coefficients in the field generated by usual periods, special values of the gamma function and Euler's constant. This is how E-functions arise from geometry and gives some intuition of why a positive answer to Siegel's question whether all E-functions are polynomial expressions in hypergeometric E-functions was extremely unlikely (joint work with Peter Jossen).

URL of the page: <https://www.ihp.fr/fr/agenda/e-functions-and-geometry>



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HORAIRES

L'institut :

- lundi au vendredi de 8h30 à 18h,
- fermé les jours fériés.

Le musée - Maison Poincaré :

- lundi, mardi, jeudi et vendredi de 9h30 à 17h30,
- samedi de 10h à 18h,
- fermé le mercredi et le dimanche.