



Du
21
OCT.
2022

16h30
-
18h00

ÉQUATIONS DIFFÉRENTIELLES MOTIVIQUES ET AU-DELÀ

Twisted local wild mapping class groups: configuration spaces, fission trees and complex braids

IHP
11, rue Pierre et Marie Curie

INSCRIPTION

I'll start by recalling that the sixth Painlevé equation is the simplest non-abelian Gauss--Manin

connection, and how this motivates the notion of *wild Riemann surface*, in order to "explain" the other Painlevé equations (and their higher dimensional friends) in a similar fashion. Then I'll describe recent results (joint with J. Doucot and G. Rembado) studying the local

wild mapping class groups in the twisted setting for arbitrary formal structure in type A. In concrete terms we study the spaces of admissible deformation parameters ("times") for the irregular isomonodromy connections, and the braid groups that occur as their fundamental groups. In

simple examples we obtain the braid groups of the complex reflection groups known as the generalised symmetric groups, showing how they appear naturally in 2d gauge theory. This study also

enables us to define skeleta classifying deformation classes of wild Riemann surfaces and to write

down the dimensions of the (global) moduli spaces of rank n , trace-free wild Riemann surfaces for

any n , a generalisation of "Riemann's count".

URL of the page: <https://www.ihp.fr/fr/agenda/twisted-local-wild-mapping-class-groups-configuration-spaces-fission-trees-and-complex>



INSTITUT HENRI POINCARÉ - UAR839

Sorbonne Université / CNRS
11 rue Pierre et Marie Curie
75231 Paris Cedex 05

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.