



Du  
**13**  
OCT.  
2021

12h00  
-  
13h00

### **RÉGA**

**Andreas Hohl - 14h00 - D-modules, (ir-)regular singularities and Stokes phenomena.**

IHP  
Salle 201

In this talk, I will motivate and present some results in the algebraic theory of differential equations with an emphasis on their history. Starting from the classical formulation of Hilbert's 21st problem, we will visit some basic results in the field of D-modules that have been inspired by this question: A crucial notion in modern Algebraic Analysis is that of a Riemann-Hilbert correspondence in its various incarnations, building bridges between analytic and topological categories. I will in particular describe the important steps towards understanding irregular singular points in dimension one. The key ingredient for their study is a phenomenon already described by Stokes in the 19th century. Finally, we will see some applications of recent groundbreaking works in this area, which allow for a purely topological study of certain data encoded in a differential system.

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**INSTITUT HENRI POINCARÉ**

11 rue Pierre et Marie Curie  
75231 Paris Cedex 05

**HORAIRES**

Lundi au vendredi : 8h30 à 18h  
Fermé les jours fériés