Linear differential equations and Stokes structure

Prof. Jean-Baptiste Teyssier¹

¹KU Leuven
Email: jeanbaptiste.teyssier@kuleuven.be

Timetable: 10 hrs. First lecture on April 4, 2017, 10:30 (dates already fixed, see the calendar), Torre Archimede, Room 2BC/30.

Course requirements:

Examination and grading:

SSD: MAT/03, MAT/05

Aim:
The goal of this course is to explain how Stokes filtered local systems in dimension one classify local analytic differential equations of one variable. We will also give an overview of what is known in the higher dimensional case

Course contents:
The formal study of linear differential equations is now well understood by means of Kedlaya-Mochizuki theorem. On the other hand, the analytic study of linear differential equations is an active research topic involving completely different techniques and structures.