Moduli Spaces of Irregular Singular Connections: Quantization and Braiding

mardi 26 avril 2022 16:45 (1 heure)

Holomorphic connections on Riemann surfaces have been widely studied, as well as their monodromy representations. Their moduli spaces have natural Poisson/symplectic structures, and they can be both deformed and quantized: varying the Riemann surface structure leads to the action of mapping class groups on character varieties (the "symplectic nature" of the fundamental group of surfaces), while geometric quantization is related to complex Chern–Simons theory.

A lesser-known extension of this story involves meromorphic connections, and in that case there are new local moduli (at each pole) complementing those of the underlying pointed Riemann surface: in this talk we will present recent work about their deformations, and about the quantization of the resulting Poisson/symplectic family of moduli spaces.

Orateur: REMBADO, Gabriele (Hausdorff Centre for Mathematics, Bonn)