Ciências ULisboa

GEOMETRY & PHYSICS

SEMINAR

30 janeiro | 11:00 | sala 6.2.33

CMAFcIO

Isomonodromic deformations and generalised braid groups

Jean Douçot (GFM, Universidade de Lisboa)

Abstract:

The notion of (linear) monodromy of a linear differential system comes from considering how its solutions change when going around its singularities. Isomonodromic deformations then arise from looking how to move the positions of the singularities while keeping the monodromy fixed. Many well-known integrable systems, including all Painlevé equations, can be obtained in this way. The goal of this talk is to explain how, by considering the (nonlinear) monodromy of such an isomonodromic system, we get actions of groups such as (generalised) braids groups on some symplectic manifolds parametrising isomorphism classes of linear systems, the (wild) character varieties.

The talk should hopefully be accessible to a wide audience, even to people who could not make it to Davide Guzzetti's nice introductory talk on isomonodromic deformations.

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fct Fundação para a Ciência e a Tecnologia

Organização (GFMUL e CMAFcIO):
Giordano Cotti, Carlos Florentino, Davide Masoero e Susana Santos

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