SFB-Seminar "Geometric Structures, PDEs, Moduli Spaces and String Theory" (Research Project C3) and Plenary Meeting

TIME:
2 Feb 2016, 15:00 - 18:00

LOCATION:

PROGRAM:

15:00 - 15:30 SFB Plenary Meeting

15:30 - 16:30 **Dr. Bjorn Andreas (FU)**

On physical conditions which impose precise mathematical problems
Consistency conditions (such as the cancellation of gauge and gravitational anomalies) in string theory lead to precise mathematical problems and conjectures. In this talk I will review some of these problems from a physical and mathematical perspective and report on recent progress toward a solution.

16:30 - 17:00 Coffee Break

17:00 - 18:00 **Dr. Mario Garcia Fernandez (Instituto de Ciencias Matematicas)**

Differential Geometry in the Strominger System Problem.
The Strominger system of partial differential equations provides a natural generalization of the Calabi problem on Calabi-Yau manifolds (complex, with trivial canonical bundle) which are not neccessarily Kählerian. In this talk I will overview some results concerning the existence and moduli problem for the Strominger system. I will start with the proof of a general existence theorem for the PDE problem in

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the case that the Calabi-Yau manifold is Kählerian. I will continue with an overview of recent progress on the moduli problem for the Strominger system.

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