

A U S H A N G

FREIE UNIVERSITÄT BERLIN

Fachbereich Mathematik und Informatik

Promotionsbüro, Arnimallee 14, 14195 Berlin

DISPUTATION

Montag, 15. Dezember 2014, 14.00 Uhr

Ort: Hörsaal: HS 001, Arnimallee 3, 14195 Berlin

Disputation über die Doktorarbeit von

Frau Giulia Battiston

Thema der Dissertation:

**The variation of the monodromy group in families of stratified bundles
in positive characteristics**

Thema der Disputation:

An overview of Grothendieck and Katz p -curvature conjecture

Die Arbeit wurde unter der Betreuung von
Prof. Dr. Dr. h.c. mult. H. Esnault durchgeführt.

Abstract: In this talk I will discuss about the so called p -curvature conjecture, introduced first by Grothendieck as a local-global principle for linear differential equations with rational coefficients, more precisely relating the propriety of isotriviality of flat connections and the vanishing of the p -curvature of their reduction modulo p (from which the name which this conjecture is commonly referred to). After explaining the conjecture and its reformulation by Katz in term of the monodromy group of the flat connection, I will discuss about the incomplete but extremely interesting results that have been obtained until now, especially referred to the work of Katz, Kisin–Farb and André.

Die Disputation besteht aus dem o. g. Vortrag, danach der Vorstellung der Dissertation einschließlich jeweils anschließenden Aussprachen.

Interessierte werden hiermit herzlich eingeladen

Die Vorsitzende der Promotionskommission
Prof. Dr. Dr. h.c. mult. H. Esnault