



Kolloquium über Reine Mathematik

Einladung zu einem Vortrag

Dienstag, 5. Mai 2015

17 Uhr s.t., Geom H4

Prof. Dr. Hartmut Weiß

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The moduli space of Higgs bundles - geometric and analytic aspects

Abstract:

The by now classical theorem of Narasimhan and Seshadri establishes a correspondence between stable holomorphic bundles (of degree 0) over a Riemann surface and irreducible unitary representations of the fundamental group. The theory of Higgs bundles lifts this correspondence from the unitary to the general linear group. Moreover, using the gauge theoretic interpretation as solutions of Hitchin's equation, the moduli space of Higgs bundles carries a natural Hyperkähler metric.

In this talk I will explain the basic notions underlying the theory and present some new results concerning the degeneration behavior of solutions to Hitchin's equation.

Vor dem Vortrag (ab 16.30 Uhr) stehen im Raum 327 Kaffee und Tee bereit.