

Geometry, Topology and Dynamics Seminar

Hitchin's equations in the category of polarized varieties

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Abstract: The Hitchin-Kobayashi correspondence states that the moduli space of stable vector bundles over a projective manifold coincides with the moduli space of Einstein-Hermitian vector bundles. Over the years, this result and its consequences have served as a motivation to relate the existence of metrics of constant curvature on polarized manifolds to K-stability. The correspondence between stable and Einstein-Hermitian vector bundles has a well-known generalization in the context of Higgs bundles, where one studies Hitchin's harmonic bundle equations. In this talk we will show an analogous construction in the category of polarized varieties, describing a possible way to add a "Higgs term" to the constant curvature equation for Kähler metrics.

Monday, March 2 at 3:00 PM in 636 SEO