

BOSTON UNIVERSITY GEOMETRY SEMINAR

Gerbes and the Holomorphic Brauer Group of Complex Tori

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Wednesday, Sep 15, 3-4 pm in MCS 149
Tea 2:45-3 in MCS 153

Abstract:

Holomorphic gerbes are certain geometric objects whose isomorphism classes form the second cohomology group of the sheaf of nowhere vanishing holomorphic functions. Locally a gerbe on a small open set should be thought of as something isomorphic to the collection of all line bundles. Actually the line bundles act on gerbes similarly to the way to functions act on sections of line bundles. In this talk, we will present some aspects of the study of gerbes on complex tori. This study is analogous to the classical study of line bundles on complex tori. Concepts such as the Appell-Humbert theorem, and the Poincare bundle and more will be presented in this new setting.