

1117-51-428

Elisheva Adina Gamse* (gamse.e@husky.neu.edu). *Vanishing relations in the cohomology of the moduli space of parabolic bundles.*

Let Σ be a compact connected oriented 2-manifold of genus g , and let p be a point on Σ . We define a space $S_g(t)$ consisting of certain irreducible representations of the fundamental group of $\Sigma \setminus p$, modulo conjugation by $SU(N)$. This space has interpretations in algebraic geometry, gauge theory and topological quantum field theory; in particular if Σ has a Kähler structure then $S_g(t)$ is the moduli space of parabolic vector bundles of rank N over Σ . We construct tautological line bundles on $S_g(t)$ and prove that the ring generated by their Chern classes vanishes above a certain degree. This is joint work with Jonathan Weitsman. (Received January 18, 2016)