1125-14-1056 **Natalie Hobson*** (nhobson@uga.edu), UGA Dept. of Mathematics, Boyd Research Center, Athens, GA 30602. *Identities between first Chern classes of vector bundles of Conformal blocks.*

Given a simple Lie algebra $\mathfrak{g}$, a positive integer ℓ, and an n-tuple $\vec{\lambda}$ of dominant integral weights for $\mathfrak{g}$ at level ℓ, one can define a vector bundle on $\overline{\mathrm{M}}_{g,n}$ known as a *vector bundle of conformal blocks*. These bundles are nef in genus $g = 0$ and so this family provides potentially an infinite number of elements in the nef cone of $\overline{\mathrm{M}}_{0,n}$ to analyze. Result relating these divisors with different data is thus significant in understanding these objects. In this talk, we use correspondences of these bundles with products in quantum cohomology in order to classify when a bundle with $\mathfrak{sl}_2$ or $\mathfrak{sp}_{2\ell}$ is rank one. We show this is also a necessary and sufficient condition for when these divisors are equivalent. (Received September 14, 2016)