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Nathan Grieve* (nathan.m.grieve@gmail.com). *Analogies amongst vector bundles on G/B and Abelian varieties.*

Let Y be an abelian variety, G a semi-simple algebraic group, $B \subseteq G$ a Borel subgroup, and $X = G/B$. The goal of this talk is to explain several analogies between vector bundles on Y and X . While some of these analogies are classical, others are more recent and become apparent when considering work of Dimitrov-Roth, concerning cup-product problems determined by line bundles on X , and work of myself, related to cup-product problems determined by line bundles on Y . I will then, time permitting, motivate and discuss the problem of extending these analogies further, for instance in the setting of polarized towers of abelian varieties and flag manifolds associated to Kac-Moody groups. (Received August 11, 2014)