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**Zhao Gao\*** (zgao1@nd.edu), 08 Fischer Graduate Residences, Apt 2C, Notre Dame, IN 46556,  
and **Claudiu Raicu**. *Cohomology of line bundles on the incidence correspondence.*

For a finite dimensional vector space  $V$ , we consider the incidence correspondence  $X \subset \mathbb{P}V \times \mathbb{P}V^\vee$ . We completely characterized the vanishing and non-vanishing of the cohomology groups of line bundles on  $X$  in characteristic  $p > 0$ . If  $\dim V = 3$ , this is the result of Griffith from the 70s. In characteristic 0 case, the cohomology groups are described for all  $V$  by the Borel-Weil-Bott theorem. In this talk, we will give graphical description of the nonvanishing behavior and sketch of proof. If time permits, we will investigate the character formula of the cohomology groups. (Received August 10, 2021)