1139-14-406 **Rahul Singh*** (`rahul.sharpeye@gmail.com`). *The Conormal Variety of a Schubert variety.*

Let X, Y be compact homogeneous spaces for a semi-simple group G, and let $\mathcal{O}$ be an orbit under the diagonal action of G on $X \times Y$. We study the conormal variety N^* of $\mathcal{O}$. Suppose first that Y is a cominuscule Grassmannian. We show that for certain orbits $\mathcal{O}$, the conormal variety is a Schubert variety associated to the loop group of G. Further, we construct a vector bundle on a Bott-Samelson variety resolving the singularities of N^*. In type A, this allows us to identify the equations defining N^* as a subvariety of the cotangent bundle of $X \times Y$. These results suggest some natural conjectures and proof strategies for the equations of N^* for general G and Y, which we discuss. (Received February 17, 2018)