Mary Clair Thompson* (mct0006@tigermail.auburn.edu), Mathematics and Statistics, 221 Parker Hall, Auburn University, Auburn, AL 36849-5310, and Tin-Yau Tam (tamtiny@auburn.edu), Mathematics and Statistics, 221 Parker Hall, Auburn University, Auburn, AL 36830. Determinants of sum of orbits under compact Lie group.

We study the determinants on the sum of orbits of two elements in the Lie algebra of a compact connected subgroup in the unitary group. As an application, the extreme determinant expressions are obtained for the symplectic group. (Received September 22, 2010)