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William M. McGovern* (mcgovern@math.washington.edu), Department of Mathematics, Box 354350, University of Washington, Seattle, WA 98195. *Singular sensations in the KGB picture.*

Let K be a symmetric subgroup of a complex reductive group G (the fixed points of an involutive automorphism). Closures of K -orbits in the flag variety G/B are called symmetric varieties. They exhibit many similarities to Schubert varieties but also important differences. I will discuss characterizations in terms of pattern avoidance of smoothness and rational smoothness for such varieties in the case of $G = GL(n)$. (Received November 30, 2007)