

1018-14-185

**Joseph M Landsberg\*** ([jml@math.tamu.edu](mailto:jml@math.tamu.edu)), Department of Mathematics, Texas A&M University, Mailstop 3368, College Station, TX 77843-3368. *Secant varieties of rational homogeneous varieties.*

Problems in algebraic statistics and computational complexity have led to the study of defining equations for, and singularities of, secant varieties of triple Segre products,  $\sigma_r(\mathbb{P}^{a-1} \times \mathbb{P}^{b-1} \times \mathbb{P}^{c-1}) \subset \mathbb{P}(\mathbb{C}^a \otimes \mathbb{C}^b \otimes \mathbb{C}^c)$ . I will report on recent progress regarding the motivating questions as well as progress on these questions in the larger context of secant varieties of homogeneously embedded rational homogenous varieties. This is joint work, partly with L. Manivel, and partly with J. Weyman. (Received March 06, 2006)