

1106-22-1091 **Arielle M Leitner*** (aleitner@math.ucsb.edu), 6510 El Colegio Rd, Apt 1103, Santa Barbara, CA 93106. *Conjugacy Limits of the Group of Diagonal Matrices.*

A *geometric transition* is a continuous path of geometries which abruptly changes type in the limit. In this project, we explore geometric transitions of the Cartan subgroup in $SL_n(\mathbb{R})$. For $n = 3$, it turns out the Cartan subgroup has precisely 5 limits, and for $n = 4$, there are 15 limits, which give rise to *generalized cusps* on convex projective 3-manifolds. (Received September 10, 2014)