1122-60-160 **Diane Holcomb*** (dianeholcomb@math.arizona.edu). *From the hard-edge to the bulk: a point process transition.*

In the study of classical Hermitian random matrix ensembles three distinct types of local behavior have been observed in the $n \to \infty$ limit (where n is the size of the matrix). The Gaussian Unitary Ensemble (GUE) exhibits one type of behavior in the interior, or bulk, of its spectrum and another at its edge. The Laguerre (also called Wishart) and Jacobi (MANOVA) ensembles exhibit the same behavior in the bulk, but depending on the choice of parameters may exhibit two different types of behavior at the edge. The first limits to the same process as the GUE and is referred to as a soft edge. The second limits to a family of determinantal point processes where the determinant is defined in terms of Bessel functions J_α and will be referred to as the hard-edge process. These distinct limiting behaviors remain when we study the generalization to β-ensembles. I will show a transition from the point process obtained at the hard-edge to the Sine_β process that appears in the bulk for general $\beta > 0$. The convergence will be shown through convergence of counting functions. On the way to the transition we also show a large deviation result for the hard-edge process. (Received August 12, 2016)