1086-32-1331　　　　　**Arash Karami*** (`akarami@math.jhu.edu`), 2735 Saint Paul Street, Art 5, Baltimore, MD 21218.
Zeros of random reinhardt polynomials in $\mathbb{C}^{m+1}$.

For a Reinhardt domain Ω with the smooth boundary in $\mathbb{C}^{m+1}$ and a positive smooth measure μ on the boundary of Ω , we consider the ensemble P_N of polynomials of degree N with the Gaussian probability measure γ_N which is induced by $L^2(\partial\Omega, d\mu)$. Our aim is to compute scaling limit distribution function and scaling limit pair correlation function between zeros when $z \in \partial\Omega$. First of all we apply stationary phase method to the Boutet de Monvel-Sjöstrand theorem to get the asymptotic for the partial szegö kernel, $S_N(z, z)$, and then we compute the scaling limit partial szegö kernel in any direction in $\mathbb{C}^{m+1}$, then by using the Kac-Rice formula we compute the scaling limit distribution function and scaling limit pair correlation function between zeros. (Received September 21, 2012)