1056-11-1871 **Timothy Lee Gillespie*** (tim-gillespie@uiowa.edu), 727 East Michael St. Apt 84, Iowa City, IA 52246. *Cyclic Base change and Rankin-Selberg Convolutions.*

Let π be an automorphic cuspidal representation of $GL_n(\mathbb{A}_E)$ with unitary central character where E is a cyclic extension of prime degree ℓ, and π is invariant under the action of $Gal(E/\mathbb{Q})$. Similarly, let π' be an automorphic cuspidal representation of $GL_m(\mathbb{A}_F)$ where F is also cyclic of prime degree ℓ and π' is invariant under the action of $Gal(F/\mathbb{Q})$. Using a result of Arthur and Clozel we define a Rankin-Selberg L-function attached to π and π' an prove a prime number theorem for this L-function. (Received September 22, 2009)