1026-11-224 **Ebru Bekyel*** (ebekyel@math.washington.edu), University of Washington, Department of Mathematics, Box 354350, Seattle, WA 98195. *Generalized Artin's conjecture over function fields.*

An integer a is a primitive root modulo a prime p if the residue a generates the cyclic multiplicative group modulo p. Artin's conjecture on primitive roots states that the number of primes p which have a as a primitive root have positive density. The notion of primitive root can be generalized using Carmichael's lambda function. Let $\lambda(n)$ be the order of the largest cyclic subgroup of integers modulo n. For a prime to n, a is a primitive root if its order modulo n is $\lambda(n)$. Let $N_a(x)$ be the number of integers $n \leq x$ such that $(a, n) = 1$ and a is a primitive root for n. There are results on the asymptotic behavior of $N_a(x)$. In the function field setting Artin's conjecture is a theorem due to Bilharz. This work in progress discusses the analogue of the generalized problem in function fields. (Received February 27, 2007)