

Texas Southern University

MATHEMATICS DEPARTMENT SEMINAR

Prime numbers, chaotic dynamics and graphs



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Thursday, March 26, 2015
2:30 pm – 3:30 pm
Room 153 at Science Building

Abstract

One of the great achievements of 19th century mathematics was the Prime Number Theorem: an approximate formula of the number of prime numbers that do not exceed x , as x becomes large. We will discuss a class of surprisingly similar results that arise when studying periodic orbits in continuous time chaotic dynamical systems. The lengths of the periodic orbits are distributed like the logarithms of primes! We will discuss this in the context some simple models of dynamical systems associated to weighed graphs.