

Meeting: 1005, Newark, Delaware, SS 4A, Special Session on Asymptotic Behavior of Evolution Equations

1005-47-106 **Gaston M. Nguerekata*** (gnguererek@jewel.morgan.edu), Department of Mathematics, Morgan State University, 1700 E. Cold Spring Lane, Baltimore, MD 21251, and **Van Minh Nguyen** (vnguyen@westga.edu), Department of Mathematics, University of West Georgia, 1601 Maple St., Carrollton, GA 30118. *Almost Automorphic Solutions of Evolution Equations I.*

In this joint talks we will speak of recent developments on the study of almost automorphic solutions of evolution equations of the form $u'(t) = Au(t) + f(t)$, where A is the generator of a C_0 -semigroup on a Banach space \mathbb{X} , f is an almost automorphic function taking values on \mathbb{X} . The results covered in the talks include a Massera criterion for the existence of an almost automorphic mild solution, new concept of uniform spectrum of an almost automorphic function and applications in the framework of the method of sums of commuting operators. The obtained results extend previous ones. (Received February 02, 2005)