

APPLIED MATHEMATICS SEMINAR
Department of Mathematics
University of West Georgia
4:00 PM, WEDNESDAY, SEPTEMBER 10, 2008, BOYD 304

Speaker: Dr. Nguyen Van Minh, UWG

Title: **Circular spectrum and bounded solutions of periodic evolution equations**

Abstract

In this talk I will speak about a new transform of functions that can be applied to study periodic evolution equations. This transform leads to a new type of spectrum of functions in a way one can recover easily many previous results in particular cases when we apply this theory to. As applications we consider periodic evolution equations of the form $u' = A(t)u + f(t)$, where $A(t)$ is in general unbounded operator depending 1-periodically on t , and f is a bounded and continuous function that is not necessarily uniformly continuous. The main result extends recent results in the direction in which the uniform continuity is a crucial assumption, saying that if the unitary spectrum of the monodromy operator does not intersect the circular spectrum of f , then the evolution equation has a unique mild solution with its circular spectrum contained in the circular spectrum of f . This is a joint work with Gaston N'guerekata and Stefan Siegmund.

All are welcome.