1004-47-13 **Van Minh Nguyen*** (`vnguyen@westga.edu`), 1600 Maple St., Carrollton, GA 30118. *Bounded Solutions of Evolution Equations.*

This talk is concerned with the existence of bounded solutions to evolution equations of the form $\dot{u}(t) = Au(t) + f(t)$ (∗), where f is a bounded (in general, non-uniformly) continuous function. Using the notion of uniform spectrum of a function and the method of sums of commuting operators, we obtain sufficient conditions for the existence of bounded mild solutions to (∗) in terms of spectral properties of A and uniform spectrum of f. We also show that this method can be extended to study the existence of bounded solutions to higher order evolution equations. (Received November 29, 2004)