İSTANBUL ANALYSIS SEMINARS

REFLEXIVITY AND HYPERREFLEXIVITY OF BOUNDED n-COCYCLE SPACES AND APPLICATION TO CONVOLUTION OPERATORS

Ebrahim SAMEI

University of Saskatchewan, Canada
Department of Mathematics and Statistics

Abstract: We introduced the concept of strong property $\mathbb{B}$ with a constant for Banach algebras and, by applying certain analysis on the Fourier algebra of a unit circle, we show that all C^*-algebras and group algebras have the strong property $\mathbb{B}$ with a constant given by $288\pi(1+\sqrt{2})$. We then use this result to find a concrete upper bound for the hyperreflexivity constant of certain spaces of bounded n-cocycles from A into X, where A is a C^*-algebra or the group algebra of a group with an open subgroup of polynomial growth and X is a Banach A-bimodule. As another application, we show that for a locally compact amenable group G and $1 < p < \infty$, the space $CV_p(G)$ of convolution operators on $L^p(G)$ are hyperreflexive with a constant given by $288\pi(1+\sqrt{2})$. This is the generalization of a well-known result of E. Christiensen for $p = 2$.

This is a joint work with Jafar Soltani Farsani.

***Date*:** March 18, 2016
***Time*:** 15:40
***Place*:** Sabancı University, Karaköy Communication Center
Bankalar Caddesi 2, Karaköy 34420, İstanbul