

Auburn Montgomery

Department of Mathematics

Colloquium/ \mathcal{MAMS}

Time: Friday, September 05, 2014, 2:00pm–3:00pm

Place: Auburn Montgomery, Goodwyn Hall, Room 202

Speaker: Professor Charles Micchelli, The State University of New York, Albany

Title: Polynomial approximation to halfband filters

Abstract: In this talk we provide information about the asymptotic properties of polynomial filters which approximate the ideal filter. In particular, we study this problem in the special case of polynomial halfband filters. Specifically we estimate the error between a polynomial filter and an ideal filter and show that the error decays exponentially fast. For the special case of polynomial halfband filters, our n -th root asymptotic error estimates are sharp. The theoretical results can provide guidance in designing digital filters.

There is also a Math Club and Engineering Club social gathering starting at 1:30pm.

****Refreshments will be served at 1:30pm****

This event is supported by the AUM Lecturer's Program.