

# COMPLEX ANALYSIS SEMINAR

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## A SOLUTION TO SCHROEDER'S EQUATION IN $\mathbb{C}^n$

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**ABSTRACT:** Cowen and MacCluer formulated the following several variables Schroeder's equation in their 2003 paper. Let  $B^n$  be the unit ball in  $\mathbb{C}^n$ , and  $\phi : B^n \rightarrow B^n$  analytic, fixing 0, having full rank near 0, and not unitary on any slice. Does there exist an analytic  $F : B^n \rightarrow \mathbb{C}^n$  satisfying

$$F \circ \phi = \phi'(0)F?$$

This talk will give necessary and sufficient conditions for a solution under the general hypothesis, and show that any formal power series solution represents an analytic function on the whole ball,  $B^n$ .

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**Date:** Thursday, September 08, 2011

**Time:** 4pm-5pm

**Place:** UH 4500

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**Webpage:** <http://math.utoledo.edu/~sonmez/complexseminar.html>