

# COMPLEX ANALYSIS SEMINAR

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## THE CAUCHY-RIEMANN EQUATIONS AND $L^2$ SERRE DUALITY ON COMPLEX MANIFOLDS

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**ABSTRACT:** In this talk we study the closed range property and boundary regularity of the Cauchy-Riemann equations on domains in complex manifolds. Recently,  $L^2$  results for the Cauchy-Riemann equations on product domains in complex manifolds and an analogue of the classical Künneth formula have been obtained (joint work with Debraj Chakrabarti). We also discuss an  $L^2$  version of the Serre duality on domains in complex manifolds with applications.

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**Date:** Thursday, October 21, 2010

**Time:** 4pm-5pm

**Place:** UH 3800

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