1128-32-136 **Andrew S Raich*** (araich@uark.edu), Department of Mathematical Sciences, 1 University of Arkansas, SCEN 327, Fayetteville, AR 72701. *Closed range of the Cauchy-Riemann operator on domains in $\mathbb{C}^n$.*

In this talk, I will discuss solvability of the Cauchy-Riemann, or $\bar{\partial}$, equation on domains in $\mathbb{C}^n$. I will talk about applications of the $\bar{\partial}$-problem and the reasons for the differences between solving the equation in one and several variables and the usefulness of working in L^2 (vs. the more classical spaces, e.g., C^∞). Solvability in several variables depends greatly on the geometry of the boundary of the domain, and I will conclude the talk with a discussion of most general geometric conditions that are known to imply solvability in L^2 on $(0,q)$-forms, and, time permitting, L^2-Sobolev spaces. (Received February 22, 2017)