

# The Cauchy-Riemann Equation on Pseudoconcave Domains with Applications

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## Abstract

The purpose of this talk is to discuss the recent progress on the Cauchy-Riemann equation on domains with pseudoconcave boundary in complex manifolds. We will examine the strong Oka's Lemma and its role in the existence and regularity for  $\bar{\partial}$  on pseudoconvex domains. Using duality, we show the Hausdorff property of the  $W^1$  Dolbeault cohomology group on a domain with pseudoconcave boundary with applications. (joint work with Siqi Fu and Christine Laurent-Thiébaud).