

**CAUCHY-FANTAPPIE' INTEGRALS FOR  
STRICTLY PSEUDOCONVEX DOMAINS IN  $\mathbb{C}^2$   
WITH NON-SMOOTH BOUNDARY**

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ABSTRACT. This is a report on work in progress with D. Barrett. We construct the Leray integral for a family of strictly convex domains in  $\mathbb{C}^2$  with boundary of class  $C^{1,\alpha}$  ( $0 < \alpha < 1$ ). We study boundary- $L^2$  regularity for the associated singular integral operator, and  $L^2$ -compactness for the related Kerzman-Stein operator.