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**Xuan Thinh Duong** and **Loredana Lanzani\*** (llanzani@syr.edu), Department of Mathematics, 900 South Crouse Ave., Syracuse, NY, and **Ji Li** and **Brett D. Wick**. *The commutator of the Cauchy-Szegő projection for domains in  $\mathbb{C}^n$  with minimal smoothness.*

Let  $D \subset \mathbb{C}^n$  be a bounded, strongly pseudoconvex domain whose boundary  $bD$  satisfies the minimal regularity condition of class  $C^2$ . We characterize boundedness and compactness in  $L^p(bD, \omega)$ , for  $1 < p < \infty$ , of the commutator  $[b, S_\omega]$  where  $S_\omega$  is the Cauchy–Szegő (orthogonal) projection of  $L^2(bD, \omega)$  onto the holomorphic Hardy space  $H^2(bD, \omega)$  and the measure  $\omega$  belongs to a family (the “Leray Levi-like” measures) that includes induced Lebesgue measure  $\sigma$ . We next consider a much larger family of measures  $\{\Omega\}$  modeled after the Muckenhoupt weights for  $\sigma$ : we define the holomorphic Hardy spaces  $H^p(bD, \Omega)$  for any  $A_p$ -like measure  $\Omega$  and we characterize boundedness and compactness of  $[b, \Omega]$  in  $L^2(bD, \Omega)$  for any  $A_2$ -like measure  $\Omega$ . Earlier closely related results rely upon an asymptotic expansion, and subsequent pointwise estimates, of the Cauchy–Szegő kernel that are not available in the settings of minimal regularity of  $bD$  and/or  $A_p$ -like measures. (Received August 28, 2020)