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**Irina Holmes\*** (iholmes6@math.gatech.edu), 686 Cherry St, Atlanta, GA 30332, **Michael T. Lacey** (lacey@math.gatech.edu), 686 Cherry St, Atlanta, GA 30332, and **Brett D. Wick** (wick@math.wustl.edu), One Brookings Drive, St. Louis, MO 63130. *Commutators in the two-weight setting.*

We discuss recent results on two-weight inequalities for commutators with Calderón-Zygmund operators. These results extend a foundational paper by Coifman, Rochberg and Weiss, where the  $L^p(\mathbb{R}^n) \rightarrow L^p(\mathbb{R}^n)$  norm of a commutator  $[b, T]$  with a Calderón-Zygmund operator  $T$  is characterized in terms of the BMO norm of  $b$ . Here we consider  $[b, T]$  acting between two different weighted Lebesgue spaces  $L^p(\mathbb{R}^n; \mu) \rightarrow L^p(\mathbb{R}^n; \lambda)$ , where  $\mu$  and  $\lambda$  are  $A_p$  weights. We characterize this two-weight norm of  $[b, T]$  in terms of a certain weighted BMO space. A first such result was obtained by Bloom in 1985, for the Hilbert transform. (Received January 03, 2016)