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**Henry Riely\*** (hriely@math.wsu.edu). *Strengthening an inequality due to Chang, Wilson, and Wolff.*

In a 1985 paper by Chang, Wilson, and Wolff, it was shown that given a function  $f : \mathbb{R} \supset I \rightarrow \mathbb{R}$ , we have the following estimate

$$\langle e^{f-\langle f \rangle_I} \rangle_I \leq e^{\frac{1}{2} \|Sf\|_\infty^2}$$

where  $Sf$  is the martingale square function associated with  $f$ .

Inspired by a recent paper L. Slavin and A. Volberg, we explore the possibility of strengthening this estimate to the form

$$\langle e^{f-\langle f \rangle_I} \rangle_I \leq \langle e^{C(Sf)^2} \rangle_I$$

where  $C$  is some real constant. (Received February 26, 2017)