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**Petr Honzik\*** ([petrhonz@math.msu.edu](mailto:petrhonz@math.msu.edu)), A320 Wells Hall, E. Lansing, MI 48824. *On the  $p$ -independence boundedness property of Calderón-Zygmund theory.*

For  $0 \leq \alpha < 1/2$  we construct examples of even integrable functions  $m$  on the unit sphere  $S^{d-1}$  with mean value zero satisfying

$$\sup_{\xi \in S^{d-1}} \int_{S^{d-1}} |m(\theta)| \log^{1+\alpha} \frac{1}{|\theta \cdot \xi|} d\theta < +\infty,$$

such that the  $L^2$ -bounded singular integral operator  $T_m$  given by convolution with the distribution p.v.  $\Omega(x/|x|)|x|^{-d}$  is not bounded on  $L^p(\mathbb{R}^d)$  when  $|\frac{1}{2} - \frac{1}{p}| > \alpha$ . (Received February 07, 2006)