1015-42-250 **Petr Honzik*** (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 $\text{p.v.}\, \Omega(x/|x|)|x|^{-d}$ is not bounded on $L^p(R^d)$ when $|\frac{1}{2} - \frac{1}{p}| > \alpha$. (Received February 07, 2006)