

1063-42-49

**Andrei Lerner\*** ([lerner@math.biu.ac.il](mailto:lerner@math.biu.ac.il)), Department of Mathematics, Bar-Ilan University,  
52900 Ramat-Gan, Israel. *Sharp weighted norm inequalities for Littlewood-Paley operators.*

We prove sharp  $L^p(w)$  norm inequalities for the intrinsic square function (introduced recently by M. Wilson) in terms of the  $A_p$  characteristic of  $w$  for all  $1 < p < \infty$ . This implies the same sharp inequalities for the classical Lusin area integral  $S(f)$ , the Littlewood-Paley  $g$ -function, and their continuous analogs  $S_\psi$  and  $g_\psi$ . (Received July 27, 2010)