

1099-42-52

Francesco Di Plinio (diplinio@mat.uniroma2.it) and **Andrei K. Lerner***
(lerner@math.biu.ac.il). *On weighted norm inequalities for the Carleson operator.*

We discuss a recent result establishing weighted $L^p(w)$ bounds for the Carleson operator in terms of the A_q constants $[w]_{A_q}$ for $1 \leq q \leq p$. In particular, in the case $1 \leq q < p$ these bounds are linear in $[w]_{A_q}$, exactly as for the Hilbert transform. In the case $q = p$ the sharpness is related to certain conjectures about the behavior of Fourier series near L^1 . (Received January 19, 2014)