1116-42-752   **Jongchon Kim*** (`jkim@math.wisc.edu`). *Recent progress on radial Fourier multipliers and some generalizations.*

Recently, important progress has been made on the L^p mapping properties of radial Fourier multipliers. We review the results and introduce some generalizations. In particular, we prove a necessary and sufficient condition for a class of quasiradial Fourier multipliers and associated maximal functions to be bounded on $L^p(\mathbb{R}^d)$ for $d \geq 4$ and $1 < p < \frac{2(d-1)}{d+1}$, which generalizes a result by Heo, Nazarov and Seeger. (Received September 11, 2015)