1015-42-185   **Paul A Hagelstein*** (`paul_hagelstein@baylor.edu`), Department of Mathematics, Baylor University, Waco, TX 76798. *Problems in Interpolation Theory Relating to Almost Everywhere Convergence of Fourier Series.*

A well-known conjecture in harmonic analysis is that the partial Fourier sums of a function in $L \log L(\mathbb{T})$ converge almost everywhere. Connections between this conjecture and recent results in interpolation theory regarding translation invariant restricted weak type operators will be discussed, and open problems in interpolation theory motivated by these results will be presented. (Received February 04, 2006)

1