1025-42-164

Geoff Diestel* (diestelg@math.sc.edu), Dept. of Math., University of South Carolina, Columbia, SC 29208, and Loukas Grafakos (loukas@math.missouri.edu), University of Missouri, Dept. of Mathematics, Colmubia, MO 65211. Some open problems and applications of bilinear Fourier multipliers. Preliminary report.

We will begin with a breif introduction to bilinear Fourier multipliers. Results, open problems, and applications will be presented. Applications to the convergence of Fourier series and the $L_p \times L_q \to L_r$ boundedness of a large class of bilinear singular integral operators with rough kernels. (Received January 22, 2007)