1099-43-371 **Marius Junge*** (mjunge@illinois.edu), Department of Mathematocs, 1409 West Green Street, Urbana, IL 61801, and **Javier Parcet** and **Mei Tao**. *Riesz transforms-old and new.* Preliminary report.

In this joint work with Parcet and Mei, we will discuss Riesz transforms on discrete groups. Although the core of the method is based on Pisier's method, it is surprising that the theory of coycles on groups provides new insides on classical Fourier multipliers and new results for Schur-Fourier multipliers. In fact almost optimal Besov conditions for Fourier multipliers can be obtained as a combination of algebraic tools, Khintchine inequalities and the classical Hilbert transform via the Coifmann-Weiss transference method. (Received February 11, 2014)