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Marius Junge and **Tao Mei*** (tao_mei@baylor.edu), Baylor University, Waco, TX 46701, and **Javier Parcet**. *Operator UMD property and Hörmander-Mikhlin Multipliers*.

It is generally believed that every Hörmander-Mikhlin Fourier multiplier extends to a bounded map on X -valued L^p spaces for any UMD Banach space X and $1 < p < \infty$. We prove that this is true if one can put an operator space structure on X such that X becomes an operator UMD space. The key ingredient of our argument is that every Hörmander-Mikhlin Fourier multiplier is a Littlewood-Paley average of Riesz transforms associated with 1-cocycles. Joint work with M. Junge and J. Parcet. (Received August 16, 2015)