

Multilinear Fourier Multipliers with Minimal Sobolev Regularity

Hanh Van Nguyen
Department of Mathematics
University of Missouri-Columbia

ABSTRACT

Let m be a positive integer. In this talk, we will introduce optimal conditions, expressed in terms of Sobolev spaces, on m -linear Fourier multiplier operators to be bounded from a product of Lebesgue or Hardy spaces to Lebesgue spaces. Our results are sharp and cover the bilinear case ($m = 2$) obtained by Miyachi and Tomita [1].

References

- [1] Miyachi A., and Tomita N., *Minimal smoothness conditions for bilinear Fourier multipliers*. Rev. Mat. Iberoamer. **29** (2013), no. 2, 495–530.