

Spherical multipliers on noncompact symmetric spaces

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Abstract. The Hörmander–Mihlin theorem in the euclidean setting asserts that a multiplier operator T_m is bounded on $L^p(\mathbb{R}^n)$, $1 < p < \infty$, and is of weak type 1, provided that the corresponding multiplier m satisfies suitable differential inequalities.

In this talk we prove weak type 1 estimates for spherical Fourier multipliers on symmetric spaces of the noncompact type, which generalize the classical multiplier results to this context. This complements earlier results of J.-Ph. Anker and A.D. Ionescu.

This is a joint work with Stefano Meda.