

Essential self-adjointness of real principal type operators.

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Abstract

This is joint work with K. Taira. We study the essential self-adjointness for real principal type differential operators, e.g. D'Alembertian operators with variable coefficients. Unlike the elliptic case, we need geometric conditions even for operators on the Euclidean space with asymptotically constant coefficients. We prove the essential self-adjointness for asymptotically flat operators of real principal type under the null non-trapping condition. In particular, we discuss a simplified proof of previous results.