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Spectrum of C^* -algebras of pseudodifferential operators with discontinuous symbols in an open manifold. (Russian) [Zbl 0599.46079](#)

Probl. Mat. Fiz. 11, 178-210 (1986).

The algebra \mathcal{A} generated by zero order pseudodifferential operators on a smooth open manifold is considered. Symbols of the operators may have discontinuities of the "first kind". In the point of such a discontinuity there exists a limit of the symbol depending on the operator, and after completing the algebra the symbols with an everywhere dense set of discontinuities arise. The spectrum of the algebra \mathcal{A} is described, i.e., the set of equivalence classes of irreducible representation with Jacobson's topology. It is found that \mathcal{A} is a I-type algebra.

Reviewer: O.Dumbrajs

MSC:

[46L05](#) General theory of C^* -algebras

[47Gxx](#) Integral, integro-differential, and pseudodifferential operators

[35S05](#) Pseudodifferential operators as generalizations of partial differential operators

Keywords:

pseudodifferential operators on a smooth open manifold; irreducible representation; Jacobson's topology