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Pseudodifferential operators on stratified manifolds. II. (English. Russian original)

Zbl 1140.58008

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The authors study the theory of elliptic pseudo-differential operators on stratified manifolds. First they introduce the class of stratified manifolds of length k . Then they consider pseudo-differential operators with parameters on the manifolds. It is proved that the definitions of the operators are invariant with respect to change of variables. The conditions for the Fredholm property of the symbols as well as the ellipticity and Fredholm property of the operators are considered. In the last section they comment on applications of the results to geometry and topology.

[For part I of this paper see the authors, *ibid.* 43, No. 4, 536–549 (2007; Zbl 1133.58023).]

Reviewer: Leszek Skrzypczak (Poznań)

MSC:

58J40 Pseudodifferential and Fourier integral operators on manifolds

47G30 Pseudodifferential operators

35S35 Topological aspects for pseudodifferential operators in context of PDEs: intersection cohomology, stratified sets, etc.

Cited in 5 Documents

Keywords:

pseudo-differential operators; manifolds with stratification

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