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Let  $\mathbb{R}^d$  be a bounded domain with smooth boundary  $\Gamma$  and  $\mathcal{A}(x, D)$  be a differential expression of order  $2m$  on  $\Omega \cup \Gamma$  with smooth coefficients. We assume that  $\mathcal{A}(x, D)$  is a formal self-adjoint strongly elliptic differential expression and its principal symbol is positive. Let denote by  $(\mathcal{A}, \Omega)$  a set of all self-adjoint realization of the formal differential operator  $\mathcal{A}(x, D)$  in the Hilbert space  $L_2(\Omega)$ . A distribution of eigenvalues for a operator  $A \in (\mathcal{A}, \Omega)$  is studied under additional assumptions of ellipticity ( $\mathcal{E}$ ) or coerciveness ( $\mathcal{C}$ ). Precise asymptotic formulae for the counting functions  $N_{\pm}(\lambda, A) := \text{card}\{k : \pm\lambda_k(A) \in (0, \lambda)\}$  are found (cf. [1], [2], [3]).

THEOREM 1. *If operator  $A \in (\mathcal{A}, \Omega)$  is positive and satisfies the condition*

$$Q(A) = D(A^{1/2}) \subset H^m(\Omega), \quad (\mathcal{C})$$

*then the Weyl's asymptotic formula*

$$N_+(\lambda, A) = w\lambda^{d/2m} + O(\lambda^{(d-1)/2m}), \quad \text{as } \lambda \rightarrow \infty \quad (*)$$

*(with standard coefficient  $w = w(\mathcal{A}', \Omega) > 0$ ) is valid.*

REMARK. The condition ( $\mathcal{C}$ ) is fulfilled if  $A > 0$  and

$$D(A) \subset H^{2m}(\Omega). \quad (\mathcal{E})$$

THEOREM 2. *If operator  $A \in (\mathcal{A}, \Omega)$  is non-semibounded and the condition ( $\mathcal{E}$ ) is fulfilled then*

$$N_-(\lambda, A) = O(\lambda^{(d-1)/2m}), \quad \text{as } \lambda \rightarrow \infty \quad (**)$$

*and asymptotic formula (\*) holds.*

The results are precise in the following sense. We can not replace "O" with "o" in formulae (\*) and (\*\*).

??1 Agmon S. Asymptotic formulas with remainder estimates for eigenvalues of elliptic operators Arch. Ration. Mech. Analysis 1968 28 3 165-183 ??2 Browder F. Asymptotic distribution of eigenvalues and eigenfunctions for non-local elliptic boundary value problems I Amer. J. Math. 1965 87 1 175-195 ??3 Brüning J. Zur Abstratzung der Spectralfunktion elliptischer Operatoren Math. Z. 1974 137 1 75-85