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UNIVERSITY OF CALIFORNIA, IRVINE

ON EIGENVALUE DISTRIBUTIONS FOR ELLIPTIC OPERATORS WITHOUT SMOOTH COEFFICIENTS. II

BY RICHARD BEALS[1]

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In two previous papers the known asymptotic formula for the eigenvalues of a selfadjoint elliptic boundary value problem was extended to some cases of operators without smooth coefficients: to the Dirichlet problem in [1] and to the general coercive differential boundary value problem in [2]. The object of this note is to complete this study by proving the formula for general (i.e. not necessarily differential) boundary value problems on domains without smooth boundary. We use the methods of [1], [2]. It should be noted that the case of differential boundary conditions can be handled in a different way; see [3].

Let Ω be a bounded open set in R^n with boundary $\partial\Omega$ which is regular in the sense of Calderón [4], i.e. satisfying the "restricted cone condition." Let $\boldsymbol{A} = \sum a_\alpha(x)D^\alpha$ be an operator defined on Ω, with coefficients in $L^\infty(\Omega)$ and top-order coefficients uniformly continuous on Ω. We assume that $\boldsymbol{A}$ is formally selfadjoint and uniformly elliptic of order m. Let A be a selfadjoint realization of $\boldsymbol{A}$ in $L^2(\Omega)$, with domain $D(A) \subset H^m(\Omega)$. Set

$$(1) \qquad c(A) = (2\pi)^{-n} \int_\Omega \int_{a(x,\xi)<1} d\xi dx,$$

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