

Daners, Daniel; Kennedy, James B.

On the asymptotic behaviour of the eigenvalues of a Robin problem. (English) Zbl 1240.35370
Differ. Integral Equ. 23, No. 7-8, 659-669 (2010).

The authors prove that every eigenvalue of a Robin problem $-\Delta u = \lambda u$ in Ω , $\frac{\partial u}{\partial \nu} = \alpha u$ on $\partial\Omega$, where α is a positive boundary parameter and $\Omega \subset \mathbb{R}^n$ is a bounded domain of class C^1 , behaves asymptotically like $-\alpha^2$ as $\alpha \rightarrow \infty$. This generalizes an existing result for the first eigenvalue.

Reviewer: Jana Stará (Praha)

MSC:

- [35P15](#) Estimates of eigenvalues in context of PDEs
- [35B40](#) Asymptotic behavior of solutions to PDEs
- [35J05](#) Laplace operator, Helmholtz equation (reduced wave equation), Poisson equation

Cited in **22** Documents

Keywords:

[eigenvalue](#); [Robin problem](#); [Laplacian](#)

Full Text: [arXiv](#)