

## GENERIC PROPERTIES FOR THE EIGENVALUES OF THE LAPLACIAN IN SYMMETRIC REGIONS.

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We discuss the generic situation of the eigenvalue problem for some elliptic operators, under the presence of symmetry. The results obtained constitute a partial answer to a conjecture implicitly formulated by V. I. Arnold in [1] and stated more explicitly in [3]. The main tools are the general framework developed by Henry in [2] for boundary perturbation problems and some basic results from the representation theory of compact groups.

### References

- [1] V. I. ARNOLD, Modes and Quasimodes, *Funct. An. and Appl.*, **6**, 94-101, 1972.
- [2] D. B. HENRY, *Perturbation of the boundary in boundary value problems*, Dunod-Gauthier Villars, Paris, First edition, 1969.
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