AN EXISTENCE AND SYMMETRY RESULT FOR A TWO-PHASE EIGENVALUE MINIMIZATION PROBLEM

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ABSTRACT. We give a simple new proof [3] of the existence of radially symmetric minimizers for the problem of minimizing the first eigenvalue of a two-phase conductor which requires the conducting phases to be distributed in a fixed proportion in a ball. This problem was originally solved by Alvino, Lions and Trombetti [1]. We refer to [2, 4, 5, 6, 7, 8] for a background of the problem and for symmetrization techniques.

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