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*A Geometric Necessary Condition for the Schiffer Problem*

The Schiffer problem is an overdetermined problem for the Laplace operator: find connected, bounded domains on which some non-constant eigenfunction under homogeneous Neumann boundary conditions, is *also* constant on the boundary. The conjecture due to M. M. Schiffer is that the only simply-connected domains possessing solutions are  $n$ -balls. Such domains are said to fail the Schiffer property. We derive a purely geometric condition, necessarily satisfied by the boundary curve of any two-dimensional domain failing the Schiffer property. Schiffer's problem then becomes a problem of differential geometry in the large.