

Maximal solution of the Liouville equation in doubly connected domains

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In this paper we consider the Liouville equation $\Delta u + 2eu = 0$ with Dirichlet boundary conditions in a two dimensional, doubly connected domain Ω . We show that there exists a simple, closed curve γ such that for a sequence $n \rightarrow \infty$ and a sequence of solutions u_n it holds $[Formula presented]$, where H is a harmonic function in Ω and $[Formula presented]$, where c is a constant depending on the conformal class of Ω only.