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NODAL SOLUTIONS FOR A PANEITZ-BRANSON TYPE EQUATION

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1. INTRODUCTION

Let (M, g) be a smooth compact Riemannian manifold of dimension $n \geq 5$. Denote L_g the Paneitz-Branson type operator. In this work, we show that there exists a nodal solution (solution with changing sign) of the nonlinear Paneitz-Branson type equation $L_g v = \epsilon |v|^{N-2} v$, where $\epsilon < 0$. At the end, we give a geometric application of the above equation.

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