Clamped plates on curved spaces

Alexandru Kristály

Sapientia Hungarian University of Transylvania
Department of Mathematics and Computer Science

alexandrukristaly@yahoo.com

The talk deals with the clamped plate problem, initially formulated by Lord Rayleigh in 1877, and solved by M. Ashbaugh & R. Benguria (Duke Math. J., 1995) and N. Nadirashvili (Arch. Ration. Mech. Anal., 1995) in 2 and 3 dimensional euclidean spaces. We consider the same problem on both negatively and positively curved spaces, and provide various answers depending on the curvature, dimension and the size of the clamped domain.