

UNIVERSIDADE FEDERAL DE SÃO CARLOS
DEPARTAMENTO DE MATEMÁTICA

COLÓQUIOS DO DM-UFSCAR

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Falará sobre

Regularity of solutions of the isoperimetric problem that
are close to a smooth manifold

In this work we consider a question in the calculus of variations motivated by riemannian geometry, the isoperimetric problem. We show that solutions to the isoperimetric problem, close in the flat norm to a smooth submanifold, are themselves smooth and $C^{2,\alpha}$ -close to the given sub manifold. We show also a version with variable metric on the manifold. The techniques used are, among other, the standards outils of linear elliptic analysis and comparison theorems of riemannian geometry, Allard's regularity theorem for minimizing varifolds, the isometric immersion theorem of Nash and a parametric version due to Gromov.

Data: 26 de setembro de 2018

Horário: 16h

Local: Auditório do DM