

UFSCar

DEPARTAMENTO DE MATEMÁTICA

COLÓQUIO

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Falará sobre:

**Compact stable constant mean
curvature surfaces in the Berger
spheres**

Resumo. In the 1-parameter family of Berger spheres S_α^3 , $\alpha > 0$ we classify the stable constant mean curvature spheres, showing that in some Berger spheres (α close to 0) there are unstable constant mean curvature spheres. Also, we classify the orientable compact stable constant mean curvature surfaces in S_α^3 for $1/3 < \alpha < 1$ proving that they are spheres of the minimal Clifford torus in $S_{1/3}^3$. This allows to solve the isoperimetric problem in the Berger spheres.

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