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The scalar-curvature problem on the standard three-dimensional sphere. (English)

Zbl 0722.53032

J. Funct. Anal. 95, No. 1, 106-172 (1991).

The authors study the problem of finding a metric conformally equivalent to the standard metric on the sphere S^3 and with prescribed scalar curvature K . The difficulty consists in the failure of the Palais-Smale condition of the corresponding variational problem. This difficulty is overcome in the paper under certain (non-degeneracy) assumptions on K .

Reviewer: [W.Ballmann \(Bonn\)](#)

MSC:

[53C20](#) Global Riemannian geometry, including pinching

Cited in **8** Reviews
Cited in **138** Documents

Keywords:

conformal change of the metric; standard sphere; prescribed scalar curvature

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