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Complete conformal metrics with negative scalar curvature in compact Riemannian manifolds. (English) [Zbl 0645.53023](#)

Duke Math. J. 56, No. 2, 395-398 (1988).

Investigating the solution of the Monge-Ampère equation the author proves that $\hat{M} = M \setminus \Gamma$ admits a complete metric \hat{g} conformally equivalent to g in case (M^n, g) is a compact Riemannian manifold and Γ is a closed smooth submanifold of dimension $d > n - 2/2$.

Reviewer: [Th.Friedrich](#)

MSC:

53C20 Global Riemannian geometry, including pinching
58J60 Relations of PDEs with special manifold structures (Riemannian, Finsler, etc.)

Cited in **2** Reviews
Cited in **22** Documents

Keywords:

conformal metrics; negative scalar curvature; Monge-Ampère equation

Full Text: [DOI](#)

References:

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- [2] P. Aviles and R. McOwen, Conformal deformation to constant negative scalar curvature on noncompact Riemannian manifolds , to appear in J. differential Geom. · [Zbl 0648.53021](#) ·
- [3] C. Loewner and L. Nirenberg, Partial differential equations invariant under conformal or projective transformations , Contributions to analysis (a collection of papers dedicated to Lipman Bers), Academic Press, New York, 1974, pp. 245-272. · [Zbl 0298.35018](#)
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