

Scalar curvature and the multiconformal class of a direct product Riemannian manifold

Thursday, November 8, 2018 3:05 PM (50 minutes)

For a closed, connected direct product Riemannian manifold $(M, g) = (M_1 \times \dots \times M_l, g_1 + \dots + g_l)$ we define its multiconformal class $\llbracket g \rrbracket$ as the totality $\{f_1^2 g_1 + \dots + f_l^2 g_l\}$ of all Riemannian metrics obtained from multiplying the metric g_i of each factor by a function $f_i^2 : M \rightarrow \mathbb{R}_+$. In this talk we discuss how constant scalar curvature metrics in a multiconformal class are related with constant scalar curvature metrics on the factors.

Summary

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