

Variations of total mixed scalar curvature

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Abstract: In [1] authors considered variations of total mixed scalar curvature (of the Levi-Civita connection) as a functional on the space of pseudoriemannian metrics preserving a fixed almost product structure. The Euler-Lagrange equations were obtained and some examples of their solutions were given.

These results will be presented and generalised — by considering the total mixed scalar curvature of a fixed distribution and varying it with respect to all pseudoriemannian metrics, as well as connections.

References

- [1] V. Rovenski, T. Zawadzki, *The Einstein-Hilbert type action on foliated pseudo-Riemannian manifolds*, ArXiv:1604.00985