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A proximal point algorithm for DC functions on Hadamard manifolds

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Resumo

Extension of a proximal point algorithm for difference of two convex functions is presented in the context of Riemannian manifolds of nonposite sectional curvature. If the sequence generated by our algorithm is bounded it is proved that every cluster point is a critical point of the function (not necessary convex) under consideration, even if minimizations are performed inexactly at each iteration. Application in maximization problems with constraints, within the framework of Hadamard manifolds is presented.