

Accelerated proximal point method for DC functions on Hadamard manifolds

João Carlos de Oliveira Souza¹

¹ Universidade Federal do Piauí

We study the convergence of an accelerated proximal point method for DC functions in Hadamard manifolds. We use the point computed by the proximal point method for DC function extended to the Riemannian context by Souza and Oliveira [J. Glob. Optim., 63 (2015), pp. 797–810] to define a descent direction which improve the convergence of method. Our method also accelerate the classical proximal point method for convex functions. We illustrate our results with numerical experiments.

Keywords: Proximal point method · DC function · Hadamard manifolds