

Computing Riemannian center of mass on Hadamard manifolds

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In this talk, we perform the steepest descent method for computing the Riemannian center of mass on Hadamard manifolds. To this end, we extend convergence of the method to the Hadamard setting for continuously differentiable (possibly nonconvex) functions which satisfy the Kurdyka-property. Some numerical experiments computing L^1 and L^2 center of mass in the context of positive definite symmetric matrices are presented using two different stepsize rules.