New conditions for affine differential convexity

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Abstract

On parallelizable manifolds, we find sufficient conditions for a differentiable function to be "(strictly) convex". Particularization for the parallelizable spheres S^1 and S^3 are given, together with a detailed study of the pointured circle. In this latter case, we give new examples of differentiable functions which are strictly convex with respect to some (properly choosed) linear connection.

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