

Overview on convex functions in sub-Riemannian geometries.

We show different notions of convexity for function defined on sub-Riemannian geometries: geodesic convexity, H-convexity, horizontal convexity, viscosity convexity and convexity along vector fields. We first investigate the relations between them and then state some properties for functions convex in these various settings. Joint work with Martino Bardi (Università di Padova).