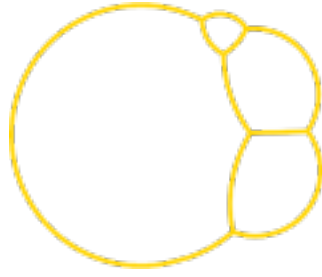


Isoperimetric Problems



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Classification of C^2 solutions for the Finsler isoperimetric problem in H^1

Tuesday, 21 June 2022 15:00 (50 minutes)

In the Heisenberg group $H^1 = \mathbb{R}^3$ we consider the perimeter associated with a norm on the horizontal distribution.

The existence of isoperimetric sets is well-known. Assuming the C_+^2 regularity of the norm, we are able to classify isoperimetric sets of class C^2 .

This is an extension to the Finsler case of a result by Ritorè and Rosales. Isoperimetric sets turn out to be foliated by geodesics for a natural optimal control problem. This property is consistent with Pansu's conjecture. This is a joint work with Franceschi, Righini and Sigalotti.

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