Oberseminar Geometrie
Department of Mathematics
University of Fribourg
Lecture room 2.52 Physics
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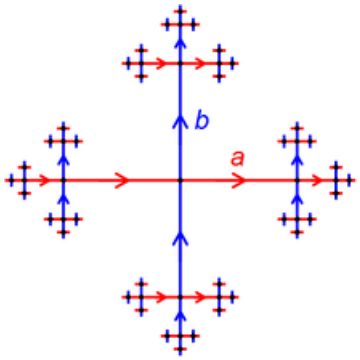

Giuliano Basso (UniFR)

Extending and improving conical bicombings

In this talk I show that every conical bicombing can be extended to the injective hull of the underlying space. As an application, I show that a question of Gromov concerning the convex hull of a compact subset of a CAT(0) space can potentially be answered by solving an analogous problem in the setting of injective metric spaces. I also establish a Descombes-Lang type result stating that every proper metric space with a conical bicombing admits a consistent bicombing satisfying certain convexity conditions. The main tool in the proof is a fixed point argument on the moduli space of all conical bicombings on the metric space in question.