

Almost isometries of non-reversible metrics with applications to stationary spacetimes

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Abstract:

In this talk, we will develop the basics of a theory of almost isometries for spaces endowed with a quasi-metric. The case of non-reversible Finsler (more specifically, Randers) metrics is of particular interest, and it will be studied in more detail. The main motivation arises from General Relativity, and more specifically in spacetimes endowed with a timelike conformal field K , in which case K -conformal diffeomorphisms correspond to almost isometries of the Fermat metric defined in the spatial part. A series of results on the topology and the Lie group structure of K -conformal maps will be discussed."