

Variational principles in quasimetric spaces

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Abstract

A quasimetric on a set X is a mapping d on $X \times X$ satisfying all the axioms of a metric excepting symmetry – the possibility that $d(x, y)$ be distinct from $d(y, x)$ is not excluded. The absence of symmetry causes a lot of striking topological differences between the quasimetric and the metric case, mainly concerning completeness and compactness.

In this presentation I shall survey some variational principles of Ekeland type for functions defined on quasimetric spaces obtained in the last time, in connection with the completeness properties of the underlying metric spaces.