
CHRISTOPHER CAPPADOCIA, McMaster

Weak hyperbolic dimension of metric spaces

Hyperbolic dimension is a quasi-isometry invariant of metric spaces introduced by Buyalo and Schroeder for its applications to quasi-isometric nonembedding problems. I will introduce a new quasi-isometry invariant of metric spaces called weak hyperbolic dimension, which gives a lower bound for hyperbolic dimension. Like hyperbolic dimension, weak dimension detects the quasi-isometry non-equivalence of hyperbolic n -space and Euclidean n -space. Weak dimension is easier to compute than hyperbolic dimension, and can be computed for a broad group of spaces. I will also discuss applications to nonembedding problems.