Coarse (non)Universality of Alexandrov Spaces

Abstract:

We will show that there exists a metric space that does not admit a coarse embedding into any Alexandrov space of global nonpositive curvature, thus answering a question of Gromov (1993). In contrast, any metric space embeds coarsely into an Alexandrov space of nonnegative curvature. Based on joint works with Andoni and Neiman, and Eskenazis and Mendel.