

1147-51-276 **Tomohiro Fukaya*** (tmhr@tmu.ac.jp), Tokyo Metropolitan University, Hachioji, Tokyo
192-0397, Japan. *Coarsely convex spaces.*

In a joint-work with Shin-ichi Oguni, we introduced a new class of metric spaces, called coarsely convex spaces, which can be regarded as a coarse version of non-positively curved spaces. This class contains hyperbolic spaces, CAT(0)-spaces, Busemann spaces and systolic complexes. This class is closed under quasi-isometry and direct product.

We showed that coarsely convex spaces satisfy a coarse geometric analogue of the Cartan-Hadamard theorem. This implies the coarse Baum-Connes conjecture for those spaces.

In this talk, I will explain the definition of coarsely convex spaces and the construction of the ideal boundary. (Received January 15, 2019)