A strongly quasi-local version of the coarse Baum-Connes conjecture

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We introduce a strongly quasi-local version of the coarse Baum-Connes conjecture, which states that certain assembly map from the coarse K-homology of a metric space to the K-theory of its strongly quasi-local algebra is bijective. We prove that the conjecture holds for metrics spaces which have bounded geometry and can be coarsely embedded into Hilbert space, and that the assembly map is injective for those can be coarsely embedded into Banach space with Property (H). This is a joint work with Hengda Bao, Xiaoman Chen and Kun Gao.