Sufficiently collapsed three-dimensional Alexandrov spaces.

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In Riemannian geometry, collapse imposes strong geometric and topological restrictions on the spaces on which it occurs. In the case of Alexandrov spaces, which are metric generalizations of complete Riemannian manifolds with a uniform lower sectional curvature bound, collapse is fairly well understood in dimension three. In this talk, I will discuss the geometry and topology of sufficiently collapsed three-dimensional Alexandrov spaces: when the space is irreducible, it is modeled on one of the eight three-dimensional dimensional Thurston geometries, excluding the hyperbolic one. This extends a result of Shioya and Yamaguchi, originally formulated for Riemannian manifolds, to the Alexandrov setting. (Joint work with Luis Guijarro and Jesús Núñez-Zimbrón).