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**Jean-Paul Doignon\*** (doignon@ulb.ac.be). *From italian menus to resolutions of convex geometries*. Preliminary report.

The selection of meal items in an italian menu is a two-stage process which is easily formalized in choice spaces. Path-independent choice spaces are cryptomorphic to convex geometries (or antimatroids) in the sense of Robert E. Jamison. There results a construction of a convex geometry based on one convex geometry plus a family of convex geometries indexed by the elements of the first geometry. The construction is similar to the classical composition of hypergraphs due to Chein, Habib & Maurer (1981), Mohring & Radermacher (1984), Ehrenfeucht & McConnell (1994), but its own features make it more appropriate in our context. We point out some properties of the constructed geometry, and also report first results on indecomposable convex geometries. In particular, we look at families of convex geometries resulting from various notions of convexity in graphs. The talk is based on on-going, joint work with Domenico Cantone, Alfio Giarlotta and Stephen Watson. (Received January 06, 2019)