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Groupoids and Shape

Shape and Strong Shape are both topological theories of approximation. Ordinary Shape has produced a purely categorical theory with many important results that also better clarify the foundations of the topological theory itself.

Although strong shape is by now a well settled theory, the same is not with it, probably because of its intrinsic more geometrical nature.

We present an attempt for a categorical approach to strong shape based on the theory of groupoid-enriched categories. Such (2-)categories have in fact a germ of homotopy in their own structure and we feel that they could deserve for a possible categorization of strong shape and also to obtain some more insights into the structure of the theory. In particular, in our contest, strong shape equivalences have a very nice characterization both in the topological case and in the very general (categorical) setting.