A short description of what I work on

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I study flexible polyhedra, that is, continuous families of simplexwise isometric yet noncongruent polyhedra in R^3. In particular, I try to find them. A handfull of examples are known, most of which are contained in [3, 5, 6, 2]. It is known by Cauchys rigidity theorem [4] that a flexible polyhedron could be convex in at most one moment. In addition we know that the volume enclosed [8, 7] and the total mean curvature [1] are constant within a flexible family. I aim to find an explicit and simple description of the geometry that makes a polyhedron flexible.

References

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