

“Foldable Products Based on Continuous Flattening Problems in Discrete Geometry”

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Abstract

Can we flatten empty containers of juice without cutting or stretching? The answer depends on conditions such as shapes and materials. The foldability is advantage, both carrying and storage, because of compactness. In this talk, by applying recent results on continuous flattening problems of polyhedral shapes in Discrete Geometry, and combining them with the Origami engineering, we introduce some examples of foldable products such as helmets and boxes. Basic ideas will also be introduced.

Research area(s): Kelvin expectation, Tiling Polyhedron, Continuous Folding, Development