

FMfI2023 Program

Name

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Title

Computationally Designing Macroscopic Behaviors of Origami

Abstract

Origami, the traditional art of folding sheets of paper, is attracting the attention of scientists and engineers as an approach to obtaining programmable metamaterials with shape-morphing abilities and mechanical properties. To control and design such exotic behaviors of origami, we are developing a novel framework to handle the macroscopic behaviors of origami through computation. The talk shows our recent works on self-organized wrinkling behaviors, conservative systems of origami tessellations, and STEAM collaboration.