

Abstract Submitted
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Evolutionary Design of Flexible and Bistable 2D Mechanical Metamaterials. NITIN SINGH, MARTIN VAN HECKE, FOM Institute AMOLF, Amsterdam — The physics of many two-dimensional metamaterials can be understood through simple one degree of freedom mechanisms of rotating polygons. Most well known are 'holey sheets' that can be mapped onto mechanism of identical rotating squares or rectangles. Here we use evolutionary algorithms to design aperiodic, yet flexible or bi(multi)-stable metamaterials.

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