Abstract Submitted
for the MAR16 Meeting of
The American Physical Society

Geometry Driven Pathways in Hierarchical Mechanical Metamaterials CORENTIN COULAIS, Leiden University / AMOLF, ALBERICO SABBADINI, Leiden University , MARTIN VAN HECKE, Leiden University / AMOLF
— Using exactingly positioned vacancies in flexible tessellations of squares, we create novel hierarchical mechanical metamaterials that can exhibit multiple shape changes under mechanical actuation. By designing bending, buckling and self-contact interactions, we unravel the link between geometry and dynamical pathways and engineer 2D transformers, which explore complex sequences of symmetrical shapes.

Corentin Coulais
Leiden / AMOLF

Date submitted: 31 Oct 2015 Electronic form version 1.4