

Abstract Submitted  
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**Tunable Mechanical Response in Biholar Elastic Media** BASTIAAN FLORIJN, HENK IMTHORN, MARTIN VAN HECKE, Leiden University —  
We probe the mechanics of 2D and 3D elastic media that are structured with arrays of holes of two different sizes. Hole size ratio plays a crucial role for the mechanical response - allowing to tune the Poisson ratio and qualitative response of the material under uniaxial loading. Biaxial and triaxial loading of these biholar structures leads to a wealth of new phenomena, including mechanically switchable hysteresis and memory effects.

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