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Rigidity Percolation in Mechanical Metamaterials LUUK LUB-BERS, MARTIN VAN HECKE, Leiden University / AMOLF — We explore rigidity percolation of non-generic diluted tilings of rigid squares coupled by hinges. These compose the backbone of a range of mechanical metamaterials, and allow for a single degree of freedom motion even for full filling. We numerically study the onset and nature of additional floppy modes which arises when sufficient square tiles are removed.

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