Séminaire du laboratoire PIMM

Mardi 28 mai 2019 à 11h en Amphi A

Prof. Tom MULLIN
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présentera dans le cadre du séminaire ses travaux intitulés :

Elastic instabilities in patterned materials

Two-dimensional periodic elastomeric cellular solids with holes arranged on a square lattice exhibit a novel uniform transformation of the structure when subjected to uniaxial compression. The original pattern is transformed into a more complex one as a result of a bifurcation. The phenomenon is robust and has been observed with many materials over a wide range of length scales. The mechanism behind the phenomenon is not completely understood and, in an attempt to shed light on the fundamentals, we report the results of an experimental and numerical investigation into a simplified version of the problem where the lattice is replaced by a single line of holes in the direction of compression.