

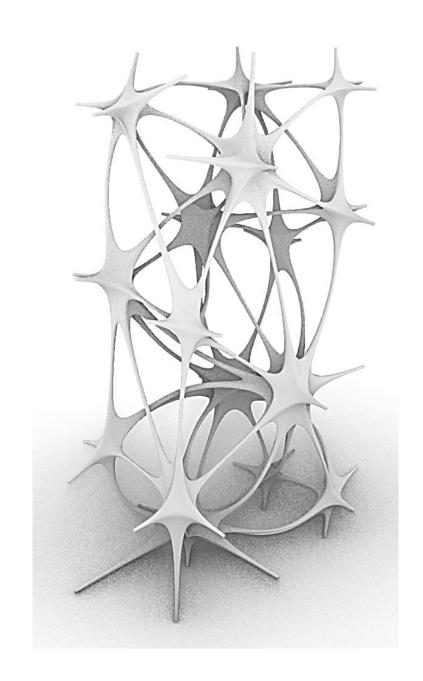
Novel Porous Structures

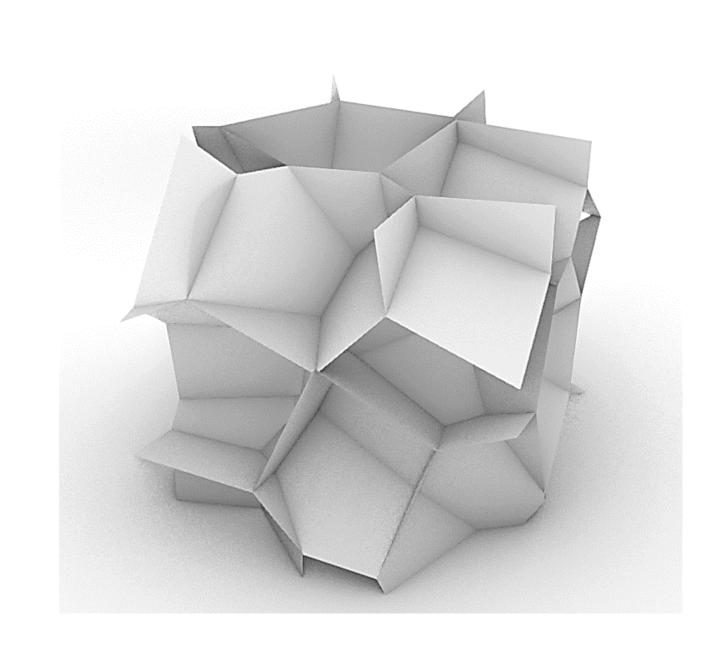
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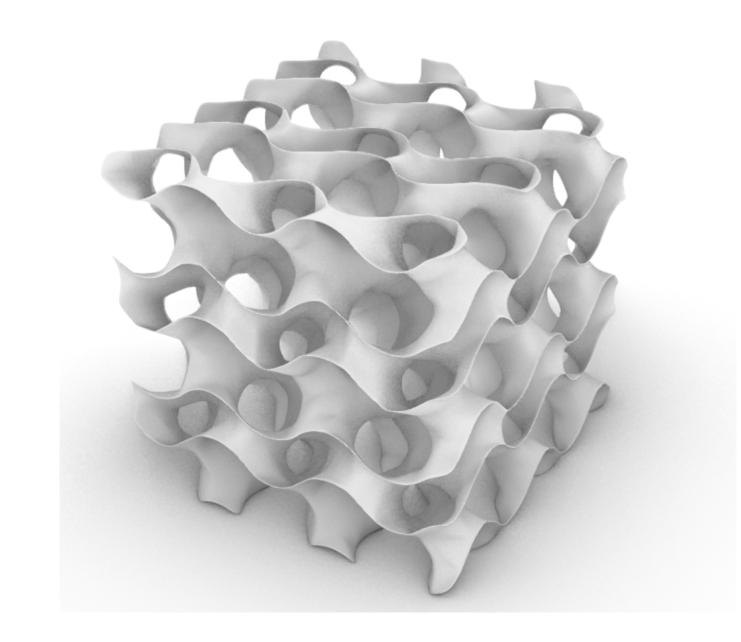
Bio-inspired foams, lattices, honeycombs

Various porosity geometries for lightweight structures and multifunctional purposes



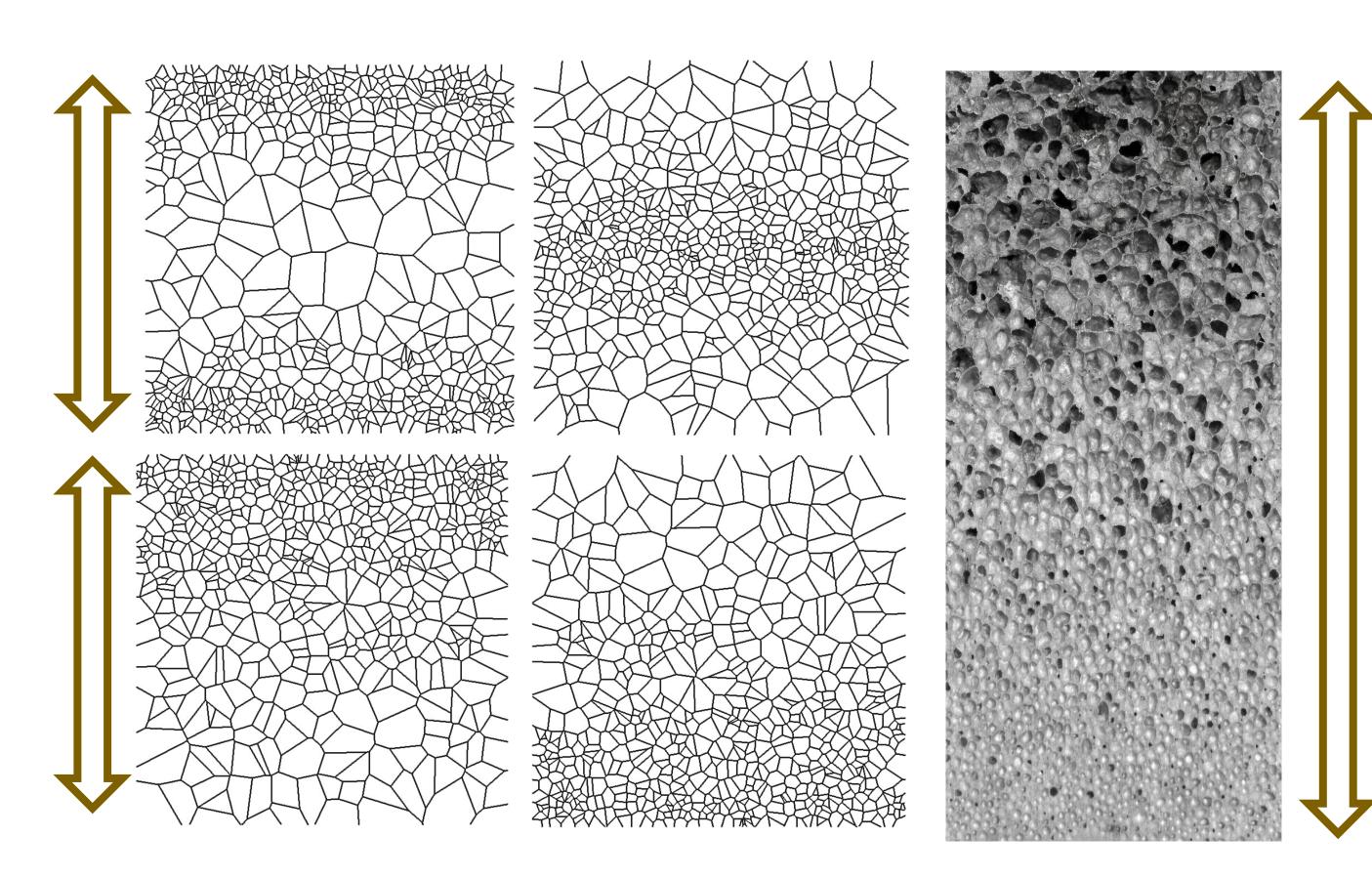




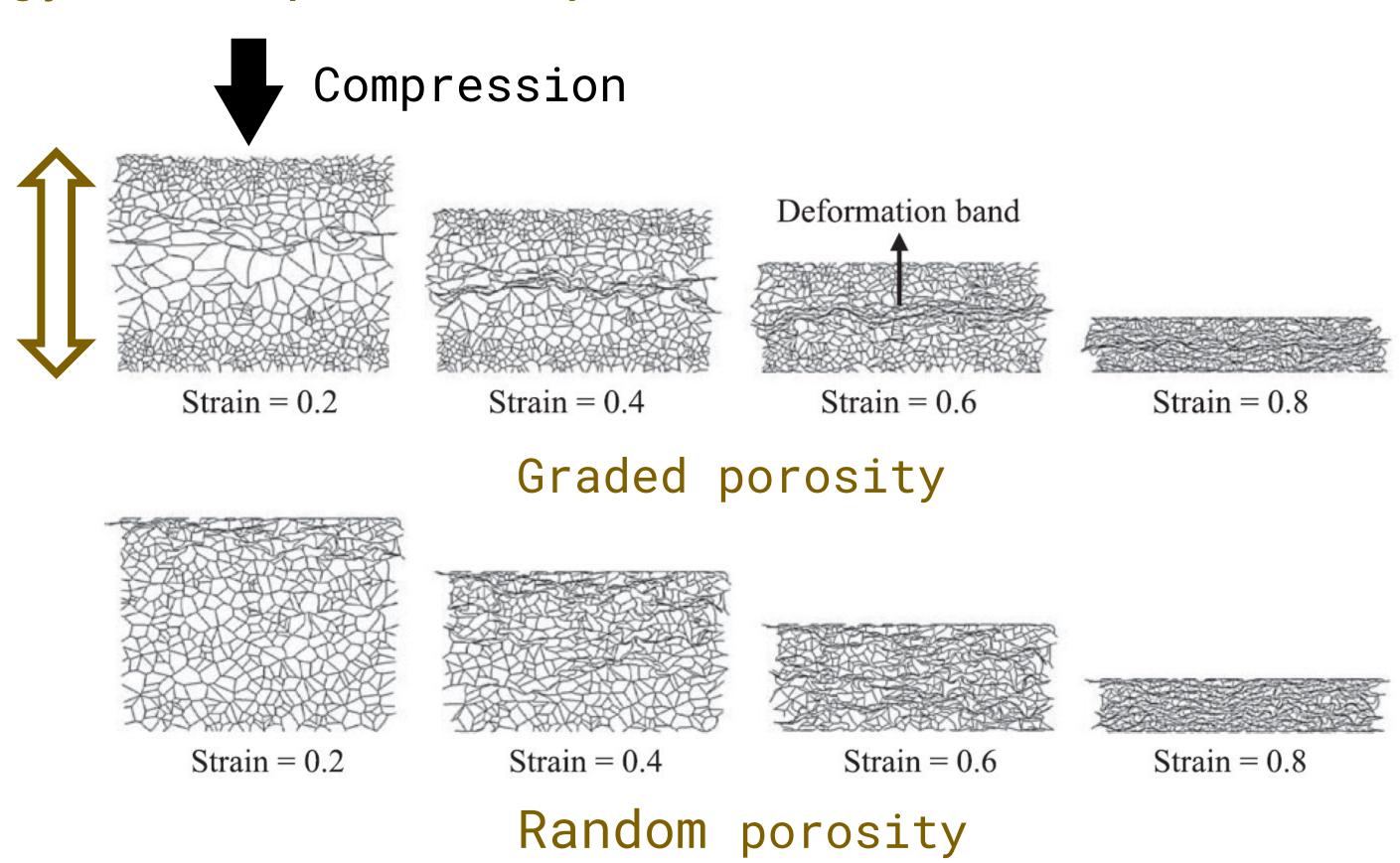


Functionally graded porous structures

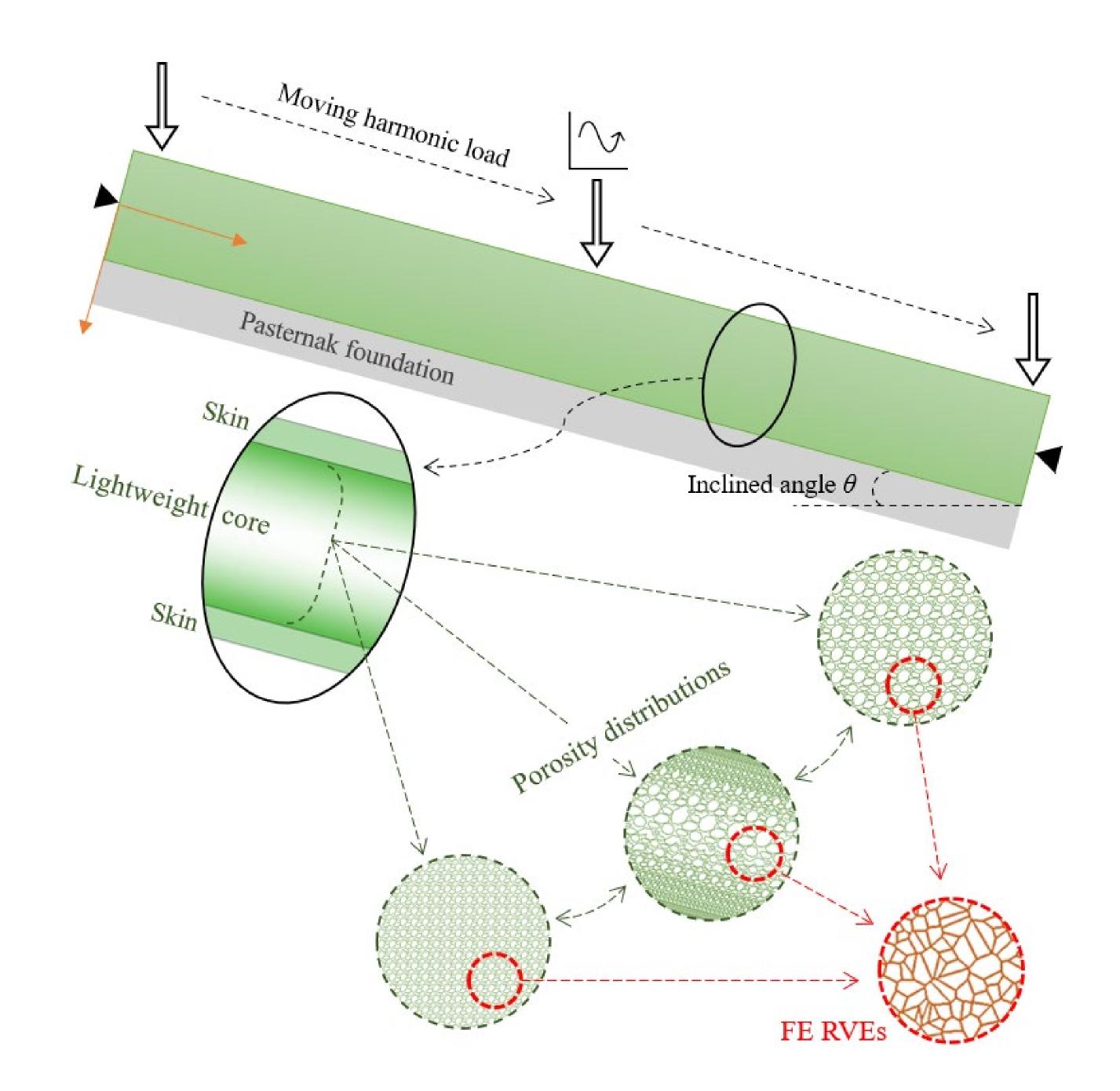
Non-uniform porosity geometries to provide enhanced structural stiffness, customized vibration performances, and superior energy absorption capacities.



Graded Porosities with changing cell sizes and densities across the thickness



Dynamic crushing of metal foams to examine their compressive energy absorptions



Multiscale modelling to assess the inclined sandwich porous beams, made of uniform/graded foams and under moving loads



Machine learning

Additive manufacturing

Applications