Randomized Lattice Graph [Closed-Cell]

nTopology

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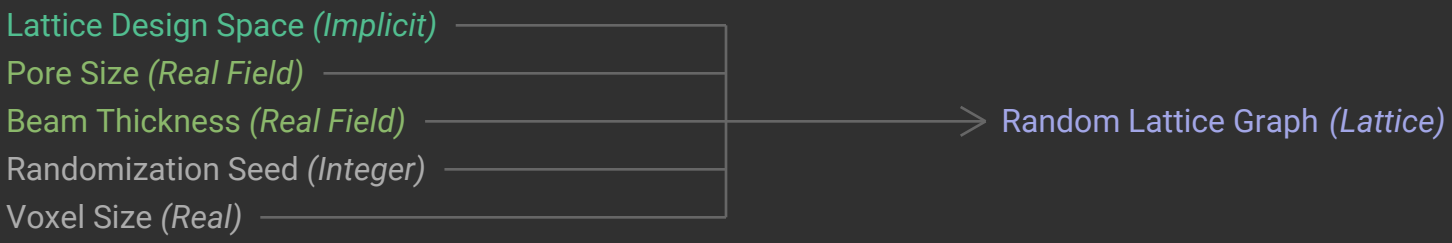

Description

Generates a randomized lattice graph with closed cells and no open beams within the lattice design space. The lattice design space is a reduced variant of the lattice design space that has been negatively offset by half the beam thickness distribution value (radius value), allowing for the downstream thickening process to create thickened lattice beams that meet the profile of the original lattice design space. The input beam thickness value for this block should match the input beam thickness value of the downstream thicken block. The input pore size value is a targeted value and the expected pore size result is a distribution within range of the targeted value.

Input Descriptions

Lattice Design Space	*Volume to be filled with a randomized lattice.*
Pore Size	*Desired beam diameter distribution of the lattice structure.*
Beam Thickness	*Target pore size distribution of the lattice structure.*
Randomization Seed	*Original seed value to algorithmically generate randomness.*
Voxel Size	*Voxel size used to generate the reference surface mesh. Lower values allow for higher profile fidelity at the cost of increased computation time.*