Square Beam Profile Lattice Mesh

nTopology

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Date Created: 2021/04/05
Version Last Modified: 2.30.2
Current Block Version: 1.0.0
Toolkit: Osseointegrative Structures
Category: Mesh Generation

Lattice Graph *(Lattice)*
Beam Thickness *(Real Field)* ⟶ Merged Beams *(Mesh)*

Description

Thickens a lattice graph's beams with a square beam profile. Each beam will have a uniform beam profile, but can accommodate a non-uniform beam distribution by evaluating the beam thickness field at the center point of each lattice beam. The generated square-thickened beam runs the full length of the lattice graph beam, resulting in geometric overlap at shared node points. Each thickened beam is an independent mesh object that is prismatically represented with 12 mesh triangles.

Input Descriptions

Lattice Graph	*Lattice graph to be thickened with a square profile.*
Beam Thickness	*Desired beam diameter distribution of the lattice structure.*