MicroCT based FE model of single bone trabeculae with tissue heterogeneity and anisotropy

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This publication contains a finite element model for the analysis of single bone trabeculae under consideration of bone tissue heterogeneity and tissue anisotropy.

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Description

The model for bone tissue heterogeneity and anisotropy follows:

Hammond, M.A., Wallace, J.M., Allen, M.R. and Siegmund, T., 2018. Incorporating tissue anisotropy and heterogeneity in finite element models of trabecular bone altered predicted local stress distributions. Biomechanics and Modeling in Mechanobiology, 17(2), pp.605-614.

In this publication the finite element model, material set assignment and local orientations are provided.

This dataset contains an inp file in the syntax of Abaqus/Standard software v2017.

Cite this work

Researchers should cite this work as follows:

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BibTex   EndNote

Tags

Biomedical Engineering   Bone   Finite Element Analysis   Mechanical Engineering

Notes

Version 1 of Trabeculae Model with Heterogeneity and Anisotropy

Acknowledgement: