MATLAB BASED COMPUTATIONAL FRAMEWORK FOR MICROSTRUCTURAL BONE DYNAMIC MODEL AND EVALUATION

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ABSTRACT

Bone mineral density is one of the component, which specifies the quality of bone. To evaluate and analysis the bone strength, microstructure of bone is required, so we develop a bone Micro structural model depending on the values of nodes and edges obtained by SEM (Scanning Electronic Microscopy),where edges represents the fibers and nodes represents the fiber bonding points. This model is processed in MATLAB, which calculate the number of nodes and edges and these values are compared with the standard values which provides the result in terms of the state of the bone that is whether the bone is healthy or diseased.