Incorporating a graph-matching algorithm into a muscle mechanics model

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Introduction

Simulation of the muscle mechanics:
- Based on Differential models
  - Iteratively updating a mesh grid
  - Deduce its new state through a finite element model.
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Introduction

Models usually assume that:

- The mesh grid is almost regular

This assumption makes a degradation of the simulation accuracy in long simulation sequences.

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Introduction

Aim of our model:
- To reduce the accuracy degradation.
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Classical iterative model
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Application: Human heart mechanics


Our model