



Algorithm for registering prostate imaging data

A semi-automatic image registration algorithm that performs registration of prostate multiparametric magnetic resonance imaging (mpMRI) data.

IP Status: US Patent Issued, US/11,633,146

Applications

- Registration of prostate mpMRI data
- Computer-aided diagnosis systems
- Prostate cancer detection/diagnosis

Technology Overview

Researchers at the University of Minnesota have developed an algorithm for registering prostate multiparametric magnetic resonance imaging (mpMRI) data. This innovative algorithm offers semi-automatic image registration designed to align mpMRI data of the prostate with exceptional precision. By utilizing advanced techniques such as mutual information (MI) and an affine transformation model, this algorithm overcomes the challenges of misalignment caused by patient motion and imaging distortions. With its ability to register mpMRI data accurately, this framework paves the way for the development of highly accurate computer-aided diagnosis (CAD) systems for prostate cancer detection, revolutionizing the field of prostate cancer diagnosis and enhancing patient outcomes.

Phase of Development

TRL: 4-5

A working prototype of the registration algorithm has been developed and tested on more than 34 clinical mpMRI cases.

Desired Partnerships

This technology is now available for:

- License
- Sponsored research
- Co-development

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Researchers

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Technology ID

20180284

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