



University of Pittsburgh

Swanson School of Engineering
Department of Civil and Environmental Engineering

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Open PhD position in computational methods and inverse problems in cardiovascular biomechanics

A highly motivated PhD student is sought for research in computational methods and inverse problems at the University of Pittsburgh (Pitt) Department of Bioengineering (BioE).

The student will perform tasks related to the development of computational tools for the analysis of cardiac medical images, modeling of mechanical behavior and evolution of cardiovascular tissues, and solution of inverse problems for characterization of these tissues and associated pathologies. The student will be jointly advised by Professors John Brigham and Michael Sacks, and the project will involve close collaboration with Professor Marc Simon (Pitt Cardiovascular Institute), among others. In addition, the student will have access to top-notch research facilities, including the Cardiovascular Biomechanics Laboratory (<http://www.pitt.edu/~msacks>), the Pittsburgh Super Computing Center (<http://www.psc.edu>), and the Pitt Center for Simulation and Modeling (<http://www.sam.pitt.edu>), along with the opportunity to work with many highly reputable faculty members within the Swanson School of Engineering and out.

The successful individual will have attained at least a Bachelor's degree and preferably a Master's degree in a related field of engineering and have strong interests and some experience in computational mathematics/mechanics, computer science, solid and fluid mechanics, inverse problems, and optimization.

Interested applicants should email their CV, a brief statement of research interests, and a potential start date to Professor Brigham at brigham@pitt.edu for immediate consideration. Any questions regarding the position are welcomed and should also be directed to Professor Brigham.

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