



About Us

Undergraduate Programs

Graduate Programs

People

Research & Facilities

News & Events

Student Resources

About WPI

Search:

John M. Sullivan, Jr., D.E.

Professor

Co-director, Center for Comparative NeuroImaging (CCNI)

Higgins Labs 109
100 Institute Road
Worcester, MA 01609

508-831-5199 (Voice)
508-831-5680 (Fax)
sullivan@wpi.edu



Related Information

- [Personal Homepage](#)
- [Teaching, Research, & Advising Interests](#)
- [Center for Comparative NeuroImaging \(CCNI\)](#)

Education

- B.S., University of Massachusetts, 1973
- B.S., University of Massachusetts, 1977
- M.S., University of Massachusetts, 1978
- D.E., Dartmouth College, 1986

Research

- Development of user interactive grid generation and deployment systems.
- Development of graphics tools and strategies to facilitate nonlinear data interpretation in the biomedical engineering field.
- Numerical solutions of partial differential equations in engineering science.
- Development of 3D tools for registration and segmentation of medical image data.

Publications

- Zhang, J.Q., J.M. Sullivan, Jr., H.A. Ghadyani, and D.M. Meyer, "MRI guided 3D mesh generation and registration for biological modeling", in press, JCISE , (2005).
- Wu, Z., K.D. Paulsen, and J.M. Sullivan, Jr., "Adaptive Model Initialization and Deformation for Automatic Segmentation of T1-weighted Brain MRI Data" IEEE Trans. Biomed. Eng., V52, No 6, p1128-1131, (2005)
- C.F. Ferris, P Kulkarni, J.M. Sullivan Jr, J.A. Harder, T.L. Messenger, and M. Febo, "Pup Suckling Is More Rewarding Than Cocaine: Evidence from Functional Magnetic Resonance Imaging and Three-Dimensional Computational Analysis", J Neuroscience, V25, N1, (2005)
- J.Q. Zhang, J.M. Sullivan, Jr., Z. Wu, U.A. Benz, "MR Image Guided Composite Imaging Data Visualization", Proc. 13th Intl. Soc. Mag. Reson. Med., No 1872, Miami, FL, (2005)
- M. Murugavel, J.M. Sullivan, Jr., P.K. Kulkarni, "An Integrated Volume Approach Enhances the Accuracy of Functional Voxel Classifications", Proc. 13th Intl. Soc. Mag. Reson. Med., No 1565, Miami, FL, (2005)

[Extended Publications Listing](#)

Honors and Awards

- Total awards exceeding 5 Million Dollars in Sponsored Research
- Recent sponsored research includes:
- "Adaptive Dual Mesh Strategy Development in Support of Alternative Breast Cancer

Imaging Modalities", NIH subcontract with Dartmouth College Hanover, NH, P01 CA80139, 08/99 - 07/2004.

- "Development and Refinement of Registration and Warping Algorithms Necessary to Transform MRI and Histological Images", with Co-PIs Q.Y. Zhang and Z. Wu, NIDA subcontract with University of Massachusetts Medical Center, Worcester, MA, Status=Active.
- "Magnetic Resonance Microwave Absorption and Tomography Imaging", Co-PI with R. Ludwig (PI), NIH (R21/R33) subcontract with Dartmouth College, Status=Active.

Scientific and Professional Societies/Memberships

- The International Society for Magnetic Resonance in Medicine, ISMRM.
- Society for Neuroscience, (SfN).
- International Society for Optical Engineering (SPIE).
- Pi Tau Sigma, Honorary Mechanical Engineering Society.
- The Scientific Research Society, Sigma Xi.

Mechanical Engineering Department - Worcester Polytechnic Institute

100 Institute Road, Worcester, MA 01609-2280 | Phone: +1-508-831-5236 | Fax: +1-508-831-5680 | me@wpi.edu