

## ROBERT JOSEPH TAMBURO PUBLICATIONS

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### Refereed Articles

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- Y. Wang, J. Zhang, B. Gutman, T. F. Chan, J. T. Becker, H. J. Aizenstein, O. L. Lopez, **R. Tamburo**, A. W. Toga, P. M. Thompson. Multivariate tensor-based morphometry on surfaces: Application to mapping ventricular abnormalities in HIV / AIDS. *NeuroImage*, 49(3):2141–2157, 2010.
- A. Cois, J. Galeotti, **R. Tamburo**, M. Sacks, G. Stetten. Shells and spheres: An n-Dimensional framework for medial-based image segmentation. *International Journal of Biomedical Imaging*, 2010.
- R. Tamburo**, J. Becker, H. Aizenstein. Effects of Amygdalar Size Normalization Strategies for Volumetric Analysis in Late-Life Depression. *in preparation*.
- M. Wu, C. Andreescu, M. A. Butters, **R. Tamburo**, C. F. Reynolds III, H. Aizenstein. Resting state connectivity and white matter burden in late-life depression. *American Journal of Psychiatry*, under review, 2009.
- R. J. Tamburo**, G. J. Siegle, G. D. Stetten, C. A. Cois, M. A. Butters, and H. J. Aizenstein. Amygdalae morphometry in late-life depression. *International Journal of Geriatric Psychiatry*, 24(8):837-846, 2009.
- R. Tamburo**. Feature-Based Correspondences to Infer the Location of Anatomical Landmarks. *Doctoral Dissertation, University of Pittsburgh*, 2006.
- G. Stetten, C. A. Cois, W. Chang, D. Shelton, **R. Tamburo**, J. Castellucci, and O. von Ramm. C-mode Virtual Image Display for a Matrix Array Ultrasound Sonic Flashlight. *Academic Radiology*, 12(5):535–43, 2005.
- G. Stetten, D. Shelton, W. Chang, **R. Tamburo**, V. Chib, A. Cois, R. Hollis, A. Rizzi, L. Lobes, and D. Schwartzman. Progress Towards a Clinically Useful Sonic Flashlight. *Academic Radiology*, Po-topic IV-16, 10(8):959, 2003.
- R. Tamburo**. Gradient-Oriented Boundary Profiles for Shape Analysis Using Medial Features. *Master's thesis, University of Pittsburgh*, 2002.
- W. Chang, G. Stetten, L. Lobes, D. Shelton, and **R. Tamburo**. Guidance of Retrobulbar Injection with Real Time Tomographic Reflection. *Journal of Ultrasound in Medicine*, 21:1131–1135, 2002.
- R. Tamburo** and G. Stetten. Gradient-Oriented Profiles for Automated Unsupervised Boundary Classification and Their Application to Core Atoms Towards Shape Analysis. *International Journal of Image and Graphics*, 1(4):659–680, 2001.
- G. Stetten and **R. Tamburo**. Real-Time 3D Ultrasound Methods for Shape Analysis and Visualization. *Methods: Special Issue on Real-Time Signal Processing in the Neurosciences*, 25(2):213–222, 2001.

## Conference Proceedings

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- R. J Tamburo**, S.-G. Kim, T. J. Huppert, A. B. Douaihy, D. M. Martineck, H. J. Aizenstein, J. T. Becker. Cerebral Vascular Response to Hypercapnia for Middle-Aged Males with HIV. *Human Brain Mapping*, Barcelona, Spain. 2010.
- R. J Tamburo**, S.-G. Kim, A. B. Douaihy, J. T. Becker. Cerebral Blood Flow as a Function of PASL Imaging Parameters. *Human Brain Mapping*, Barcelona, Spain. 2010.
- M. Wu, **R. Tamburo**, M. Butters, C. F. Reynolds III, H. J. Aizenstein. Resting State fMRI in Geriatric Depression Before and After Treatment. *International Society for Magnetic Resonance in Medicine*, Toronto, Canada. 2008.
- R. Tamburo**, G. Siegle, G. Stetten, C. A. Cois, K. Rockot, J. Galeotti, C. Reynolds III, H. Aizenstein. Localizing Amygdala Structure Differences in Late-Life Depression. In *International Symposium on Biomedical Imaging*, Washington, D.C., 2007. IEEE Computer Society.
- C. A. Cois, K. Rockot, J. Galeotti, **R. Tamburo**, D. Gottlieb, J. E. Mayer, A. Powell, M. Sacks, G. Setten. Automated Segmentation of the Right Heart Using an Optimized Shells and Spheres Algorithm. In *International Symposium on Biomedical Imaging*, Washington, D.C., 2007. IEEE Computer Society.
- M. Wu, **R. Tamburo**, M. Butters, C. F. Reynolds III, H. J. Aizenstein. Default-Mode Network Activity in Elderly Depression. *Society for Neuroscience*, San Diego, CA. 2007.
- P. Dutta, M. Wu, **R. Tamburo**, M. Butters, C. F. Reynolds III, H. J. Aizenstein. Tensor-Based Morphometry and Classifier Algorithms for the Identification of Structural Brain Changes in Geriatric Ddepression. *International Society for Magnetic Resonance in Medicine*, Berlin, Germany, May 19–25, 2007.
- M. Wu, **R. Tamburo**, G. Siegle, H. J. Aizenstein. Extracting the Resting-State BOLD Signal From an Event-Related fMRI Study. *International Society for Magnetic Resonance in Medicine*, Berlin, Germany, May 19–25, 2007.
- R. Tamburo**, C. A. Cois, D. Shelton, and G. Stetten. Novel method to automatically identify medial node correspondences between two images. In J M Fitzpatrick and M Sonka, editors, *Medical Imaging 2004: Image Processing*, volume 5370, pages 1225–1235, San Diego, 2004. Proceedings of SPIE.
- R. Tamburo**, A. Cois, D. Shelton, and G. Stetten. Medial Node Correspondances Towards Automated Registration. In Gee, Maintz, and Vannier, editors, *WBIR*, pages 339–348, Philadelphia, 2003. Lecture Notes in Computer Science.
- G. Stetten, C. A. Cois, W. Chang, D. Shelton, **R. Tamburo**, J. Castellucci, and O. von Ramm. C-mode Virtual Image Display for a Matrix Array Ultrasound Sonic Flashlight. In *Medical Image Computing and Computer-Assisted Intervention*, volume 2879, pages 336–343, Toronto, 2003. Lecture Notes in Computer Science.

- G. Stetten, D. Shelton, W. Chang, V. Chib, **R. Tamburo**, D. Hildebrand, L. Lobes, and J. Sumkin. Towards a Clinically Useful Sonic Flashlight. In *International Symposium on Biomedical Imaging*, pages 417–420, Washington, D.C., 2002. IEEE Computer Society.
- G. Stetten, V. Chib, and **R. Tamburo**. System for Location-Merging Ultrasound Images with Human Vision. In *Applied Imagery Pattern Recognition (AIPR) Workshop*, pages 200–205, Washington, DC, 2000. IEEE Computer Society.
- R. Tamburo** and G. Stetten. Gradient Oriented Profiles for Unsupervised Boundary Classification. In *Applied Imagery Pattern Recognition (AIPR) Workshop*, pages 206–212, Washington, DC, 2000. IEEE Computer Society.

## Abstracts

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- R. Tamburo**, G. Siegle, G. Stetten, C. A. Cois, K. Rockot, J. Galeotti, C. Reynolds III, H. Aizenstein. Localizing Amygdala Structure Differences in Late-Life Depression. In *University of Pittsburgh Data and Dine Symposium*, Pittsburgh, PA, 2007.
- M. Wu, **R. Tamburo**, G. Siegle, H. J. Aizenstein. Extracting the Resting-State BOLD Signal From an Event-Related fMRI Study. *International Society for Magnetic Resonance in Medicine*, In press, Berlin, Germany, May 19–25, 2007.
- P. Dutta, M. Wu, **R. Tamburo**, M. Butters, C. F. Reynolds III, H. J. Aizenstein. Tensor-based Morphometry and Classifier Algorithms for the Identification of Structural Brain Changes in Geriatric Depression. *International Society for Magnetic Resonance in Medicine*, In press, Berlin, Germany, May 19–25, 2007.
- R. Tamburo**, G. Siegle, G. Stetten, C. A. Cois, C. Reynolds III, H. Aizenstein. Amygdala Shape Morphometry in Late-Life Depression. *Celebrating Research on Aging: Building Collaborations for the Future*, University of Pittsburgh, October 17, 2006.
- R. Tamburo**, G. Siegle, G. Stetten, C. A. Cois, C. Reynolds III, H. Aizenstein. Amygdala Shape Morphometry in Late-Life Depression. *Science2006*, University of Pittsburgh, October 5–6, 2006.
- G. Stetten, D. Shelton, W. Chang, **R. Tamburo**, V. Chib, C. A Cois, R. Hollis, A. Rizzi, L Lobes, and D Schwartzman. Progress Towards a Clinically Useful Sonic Flashlight, 2003.

## Invited Presentations

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- R. Tamburo**, G. Siegle, G. Stetten, C. A. Cois, K. Rockot, J. Galeotti, C. Reynolds III, H. Aizenstein. Localizing Amygdala Structure Differences in Late-Life Depression. In *University of Pittsburgh Data and Dine Symposium*, Pittsburgh, PA, 2007.
- R. Tamburo**, G. Siegle, G. Stetten, C. A. Cois, C. Reynolds III, H. Aizenstein. Amygdala Shape Morphometry in Late-Life Depression. *Celebrating Research on Aging: Building Collaborations for the Future*, University of Pittsburgh, October 17, 2006.

- R. Tamburo**, G. Siegle, G. Stetten, C. A. Cois, C. Reynolds III, H. Aizenstein. Amygdala Shape Morphometry in Late-Life Depression. *Science2006*, University of Pittsburgh, October 5–6, 2006.
- R. Tamburo**. Medial-Based Feature Correspondences. *CMU Statistics Department Imaging Group Meeting*, 2005.
- R. Tamburo**. Medial-Based Feature Correspondences. *CMU VASC Retreat*, Flintstone, Maryland, August 4–6, 2003.
- G. Stetten, **R. Tamburo**, J. Galeotti, W. Chang, D. Shelton, and D. Sahn. Real Time 3D Echocardiographic Data with Semi-Automated Boundary Tracking Algorithms. *Meeting of the NLM Insight Toolkit Consortium*, Philadelphia, Feb 6, 2003.
- D. Shelton, W. Chang, and **R. Tamburo**. Ultrasound Visualization With the Sonic Flashlight. *SIGGRAPH, 29th International Conference on Computer Graphics and Interactive Techniques*, San Antonio, July 2002.
- R. Tamburo** and G. Stetten. Gradient-Oriented Profiles for Unclassified Boundary Detection. *Applied Imagery and Pattern Recognition Workshop*, Cosmos Club, Washington D.C., October 17, 2000.
- G. Stetten, V. Chib, and **R. Tamburo**. System for location-merging ultrasound images with human vision. *Applied Imagery and Pattern Recognition Workshop*, Cosmos Club, Washington D.C., October 17, 2000.
- G. Stetten, V. Pitiyanuavath, **R. Tamburo**, and A. Cois. Java Standards Emulation (JSE): A New Internal GUI for C++. *NLM insight Software Consortium, Core Developers Meeting*, June 22, 2000.
- G. Stetten, W. Portnoy, A. Cois, and **R. Tamburo**. Medial Morphogenesis of Shapes Using Medial Node Models. *NLM Insight Software Consortium, Core Developers Meeting*, Washington D.C., 2000.
- R. Tamburo**. Quantitative Model and Simulation of the Vasculature in the Abdominal Skin Flap of a Rat. *National Minority Research Symposium*, New York City, NY., 1998.
- R. Tamburo**. Quantitative Model and Simulation of the Vasculature in the Abdominal Skin Flap of a Rat. *Annual Meeting for The American Society for Biochemistry and Molecular Biology*, Washington, D.C., 1998.
- R. Tamburo**. Segmentation of the Paranasal Sinuses in the Visible Human Dataset. *National Minority Research Symposium,,* New Orleans, LA., 1997.
- R. Tamburo**. The Affects of Magnetic Annealing on Nd-Fe-Co-B. *Delaware State University Honor's Day*, Dover, Delaware, 1996.
- R. Tamburo**. The Affects of Magnetic Annealing on Nd-Fe-Co-B. *National Minority Research Symposium*, Miami, FL, 1996.

## Technical Reports

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- R. Tamburo** RGB Image Color Space Transformations. *The Insight Journal*, July - December, 2010. Available online at <http://hdl.handle.net/10380/3237>.
- R. Tamburo** Variance Image Filter. *The Insight Journal*, July - December, 2010. Available online at <http://hdl.handle.net/10380/3236>.
- R. Tamburo** Entropy Image Filter. *The Insight Journal*, July - December, 2010. Available online at <http://hdl.handle.net/10380/3241>.
- R. Tamburo** New Features for MinimumMaximumImageCalculator. *The Insight Journal*, July - December, 2010. Available online at <http://hdl.handle.net/10380/3244>.
- R. Tamburo** Orthogonal Bisection of an Image. *The Insight Journal*, July - December, 2006. Available online at <http://hdl.handle.net/1926/322>.
- R. Tamburo** itkMultipleUnlabeledImagesToLabeledImageFilter. *The Insight Journal*, July - December, 2006. Available online at <http://hdl.handle.net/1926/323>.
- C. A. Cois, K. Rockot, J. Galeotti, **R. J. Tamburo**, and G. D. Stetten Shells and Spheres: A Framework for Variable Scale Statistical Image Analysis. *Technical Report, Carnegie Mellon University*, CMU-RI-TR-04-19, 2006. Available online at [http://www.ri.cmu.edu/pubs/pub\\_5401.html](http://www.ri.cmu.edu/pubs/pub_5401.html).
- D. Wang, **R. Tamburo**, and G. Stetten Cumulative Gaussian Curve Fitter for Boundary Parameterization. *Special issue for MICCAI 2005 Workshop on Open-Source Software, published online in The Insight Journal*, 2005. Available online at <http://hdl.handle.net/1926/45>.