# Randall L Barbour

List of Publications by Year
in descending order

| | | | |
|---|---|---|---|
| 49 papers | 2,039 citations | 361296<br>20 h-index | 377752<br>34 g-index |
| 50 all docs | 50 docs citations | 50 times ranked | 1133 citing authors |

| # | ARTICLE | IF | CITATIONS |
|---|---------|----|-----------|
| 1 | Endurance Exercise Enhances Emotional Valence and Emotion Regulation. Frontiers in Human Neuroscience, 2018, 12, 398. | 1.0 | 22 |
| 2 | Hemoglobin state-flux: A finite-state model representation of the hemoglobin signal for evaluation of the resting state and the influence of disease. PLoS ONE, 2018, 13, e0198210. | 1.1 | 2 |
| 3 | Hemodynamic correlates of spontaneous neural activity measured by human whole-head resting state EEG + fNIRS. NeuroImage, 2016, 138, 76-87. | 2.1 | 36 |
| 4 | On the geometry dependence of differential pathlength factor for near-infrared spectroscopy. I. Steady-state with homogeneous medium. Journal of Biomedical Optics, 2015, 20, 105005. | 1.4 | 26 |
| 5 | Enhanced resting‑state dynamics of the hemoglobin signal as a novel biomarker for detection of breast cancer. Medical Physics, 2015, 42, 6406-6424. | 1.6 | 5 |
| 6 | Transient Artifact Reduction Algorithm (TARA) Based on Sparse Optimization. IEEE Transactions on Signal Processing, 2014, 62, 6596-6611. | 3.2 | 36 |
| 7 | Simultaneous Low-Pass Filtering and Total Variation Denoising. IEEE Transactions on Signal Processing, 2014, 62, 1109-1124. | 3.2 | 118 |
| 8 | Cerebral Monitoring and Surveillance Using High-Resolution Functional Optical Imaging. Neuromethods, 2014, , 307-330. | 0.2 | 1 |
| 9 | A Programmable Laboratory Testbed in Support of Evaluation of Functional Brain Activation and Connectivity. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2012, 20, 170-183. | 2.7 | 61 |
| 10 | Multimodal Integration of fMRI, EEG, and NIRS. , 2012, , . | | 2 |
| 11 | Optomechanical imaging system for breast cancer detection. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2011, 28, 2473. | 0.8 | 37 |
| 12 | Do Low-density Cerebral Oximetry Measures Accurately Detect Variability of Cerebral Perfusion During Cardiac Surgery?. , 2010, , . | | 0 |
| 13 | Using co-variations in the Hb signal to detect visual activation: A near infrared spectroscopic imaging study. NeuroImage, 2009, 47, 473-481. | 2.1 | 54 |
| 14 | Systems and Strategies for Accessing the Information Content of fNIRS Imaging in Support of Noninvasive BCI Applications. Lecture Notes in Computer Science, 2009, , 709-718. | 1.0 | 1 |
| 15 | Event-related fast optical signal in a rapid object recognition task: Improving detection by the independent component analysis. Brain Research, 2008, 1236, 145-158. | 1.1 | 79 |
| 16 | The design and characterization of a digital optical breast cancer imaging system. , 2008, 2008, 3735-8. | | 5 |
| 17 | Validation of near infrared spectroscopic (NIRS) imaging using programmable phantoms. Proceedings of SPIE, 2008, , . | 0.8 | 8 |
| 18 | Simultaneous Bilateral Optical Tomography of Vascular Dynamics of the Breast Using High-Density Sensing Arrays. , 2008, , . | | 0 |

| # | ARTICLE | IF | CITATIONS |
|---|---------|-----|-----------|
| 19 | Design of a Digital Optical Tomography System for Dynamic Breast Imaging. , 2008, , . | | 0 |
| 20 | NIRS-Based Quantitative Measurement of Autoregulatory Effects on Microvascular Hemoglobin Oxygenation: Concept, Simulations, and Experimental Control Studies. , 2008, , . | | 0 |
| 21 | Image correction algorithm for functional three-dimensional diffuse optical tomography brain imaging. Applied Optics, 2007, 46, 1693. | 2.1 | 18 |
| 22 | Image correction scheme applied to functional diffuse optical tomography scattering images. Applied Optics, 2007, 46, 1705. | 2.1 | 6 |
| 23 | Image quality improvement via spatial deconvolution in optical tomography: time-series imaging. Journal of Biomedical Optics, 2005, 10, 051701. | 1.4 | 9 |
| 24 | Dynamic studies of small animals with a four-color diffuse optical tomography imager. Review of Scientific Instruments, 2005, 76, 094302. | 0.6 | 18 |
| 25 | Spatial deconvolution technique to improve the accuracy of reconstructed three-dimensional diffuse optical tomographic images. Applied Optics, 2005, 44, 941. | 2.1 | 13 |
| 26 | Improved accuracy of reconstructed diffuse optical tomographic images by means of spatial deconvolution: two-dimensional quantitative characterization. Applied Optics, 2005, 44, 2115. | 2.1 | 10 |
| 27 | Design and implementation of dynamic near-infrared optical tomographic imaging instrumentation for simultaneous dual-breast measurements. Applied Optics, 2005, 44, 2140. | 2.1 | 138 |
| 28 | Strategies for Imaging Diffusing Media. Transport Theory and Statistical Physics, 2004, 33, 361-371. | 0.4 | 9 |
| 29 | Functional imaging of the vascular bed by dynamic optical tomography. , 2004, , . | | 2 |
| 30 | Data integrity assessment and instrument calibration for the DYNOT imaging system. , 2004, , . | | 1 |
| 31 | A fast reconstruction algorithm for implementation of time-series DC optical tomography. , 2003, 4955, 236. | | 6 |
| 32 | Signal source separation and localization in the analysis of dynamic near-infrared optical tomographic time series. , 2003, , . | | 5 |
| 33 | Time-frequency analysis of functional optical mammographic images. , 2003, , . | | 5 |
| 34 | Instrumentation for fast functional optical tomography. Review of Scientific Instruments, 2002, 73, 429-439. | 0.6 | 146 |
| 35 | Imaging of spatiotemporal coincident states by DC optical tomography. IEEE Transactions on Medical Imaging, 2002, 21, 852-866. | 5.4 | 29 |
| 36 | Optical spectroscopy and prevention of deleterious cerebral vascular effects of ethanol by magnesium ions. European Journal of Pharmacology, 2002, 447, 79-86. | 1.7 | 4 |

| # | Article | IF | Citations |
|---|---------|-----|-----------|
| 37 | Influence of systematic errors in reference states on image quality and on stability of derived information for dc optical imaging. Applied Optics, 2001, 40, 5755. | 2.1 | 90 |
| 38 | Optical tomographic imaging of dynamic features of dense-scattering media. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2001, 18, 3018. | 0.8 | 130 |
| 39 | Normalizedâ€"constraint algorithm for minimizing interâ€"parameter crosstalk in DC optical tomography. Optics Express, 2001, 9, 97. | 1.7 | 77 |
| 40 | Three-dimensional optical tomography of hemodynamics in the human head. Optics Express, 2001, 9, 272. | 1.7 | 256 |
| 41 | <title>Clinical applications of dynamic optical tomography in vascular disease</title>. , 2001, , . | | 17 |
| 42 | <title>Instrumentation for real-time dynamic optical tomography</title>. , 2001, , . | | 6 |
| 43 | <title>Imaging of vascular chaos</title>. , 2001, , . | | 7 |
| 44 | <title>Performance characteristics of silicon photodiode (SiPD)-based instrument for fast functional optical tomography</title>. , 2001, 4250, 171. | | 13 |
| 45 | Instrumentation and calibration protocol for imaging dynamic features in dense-scattering media by optical tomography. Applied Optics, 2000, 39, 6466. | 2.1 | 96 |
| 46 | Comparison of finite-difference transport and diffusion calculations for photon migration in homogeneous and heterogeneous tissues. Physics in Medicine and Biology, 1998, 43, 1285-1302. | 1.6 | 328 |
| 47 | Luminescence optical tomography of dense scattering media. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 1997, 14, 288. | 0.8 | 55 |
| 48 | Recovery of optical cross-section perturbations in dense-scattering media by transport-theory-based imaging operators and steady-state simulated data. Applied Optics, 1996, 35, 3963. | 2.1 | 21 |
| 49 | Optical Spectroscopy and Cerebral Vascular Effects of Alcohol in the Intact Brain: Effects on Tissue Deoxyhemoglobin, Blood Content, and Reduced Cytochrome Oxidase. Alcoholism: Clinical and Experimental Research, 1993, 17, 1319-1324. | 1.4 | 30 |