

PUBLICATIONS

Dr. Martin Burger

PUBLICATIONS IN PEER-REVIEWED JOURNALS

1. B.Lanfer, M.Scherg, M.Dannhauer, T.R.Knösche, M.Burger, C.H.Wolters, Influence of skull segmentation inaccuracies on EEG source analysis, *NeuroImage* (2012), to appear.
2. F.Lucka, S.Pursiainen, M.Burger, C.H.Wolters, Hierarchical Bayesian inference for the EEG inverse problem using realistic FE head models: Depth localization and source separation for focal primary currents, *NeuroImage* (2012), to appear.
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4. M.Burger, B.Schlake, M.Wolfram, Nonlinear Poisson-Nernst-Planck equations for ion flux through confined geometries, *Nonlinearity* (2012), to appear.
5. F.Gigengack, L.Ruthotto, M.Burger, C.Wolters, X.Jiang, K.Schäfers, Motion correction in dual gated cardiac PET using mass preserving image registration, *IEEE Trans. Med. Imaging* (2012), to appear.
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7. M.Möller, T.Wittman, A.Bertozi, M.Burger, A variational approach for sharpening high-dimensional images, *SIAM J. Imag. Sci.* (2012), to appear.
8. M.Burger, P.Markowich, J.Pietschmann, Continuous limit of a crowd motion and herding model: Analysis and numerical simulations, *Kinetic and Related Methods* 4 (2011), 1025-1047.
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25. M.Burger, R.Pinnau, A globally convergent Gummel map for optimal dopant profiling, *Math. Models Meth. Appl. Sci.* 19 (2008), 769-786.
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38. M.Burger, V.Capasso, D. Morale, On an aggregation model with long and short range interactions, *Nonlinear Analysis. Real World Applications* 8 (2007), 939-958.
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PUBLICATIONS IN PROCEEDINGS AND COLLECTED VOLUMES

1. F.Gigengack, L.Ruthotto, J.Modersitzki, M.Burger, C.Wolters, X.Jiang, K.Schäfers, A simplified pipeline for motion correction in dual gated cardiac PET, *Bildverarbeitung für die Medizin 2012*, to appear
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PREPRINTS / SUBMITTED PAPERS

- N.Emken, A.Püschel, M.Burger, Mathematical modelling of polarizing GTPases in developing axons, Preprint 2012.
- M.Burger, S.Osher, A guide to the TV zoo, Preprint, 2012.
- M.Benning, C.Brune, M.Burger, J.Müller, Higher-order TV methods – enhancement via Bregman iteration, Preprint, 2012.
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- M.Burger, J.F.Pietschmann, M.T.Wolfram, Identification of nonlinearities in transport-diffusion models of size exclusion, Preprint (2011), and submitted.
- M.Burger, J.Modersitzki, L.Ruthotto, A hyperelastic regularization energy for image registration, Preprint (2011), and submitted.
- M.Burger, M.Di Francesco, M.Franek, Stationary states of quadratic diffusion equations with long-range attraction, UCLA CAM-Report 11-12 (2011), and submitted.
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- M.Burger, R.Pinnau, *Optimization Models for Semiconductor Devices*, Birkhäuser, 2012, in preparation
- M.Burger, S.Osher, eds., *Level Set and PDE-Based Reconstruction Methods*, Springer, 2012, in preparation