

ANIMGN11 / ANIMGN20: Advanced Imaging

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Andersson, J. L. R., Hutton, C., Ashburner, J., Turner, R., & Friston, K. (2001). Modeling Geometric Deformations in EPI Time Series. *NeuroImage*, 13(5), 903–919.
<https://doi.org/10.1006/nimg.2001.0746>

Artifacts in Diffusion MRI. (n.d.).
http://stbb.nichd.nih.gov/pdf/9780195369779_Jone-Pierpaoli.pdf

Ashburner, J. (2007). A fast diffeomorphic image registration algorithm. *NeuroImage*, 38(1), 95–113. <https://doi.org/10.1016/j.neuroimage.2007.07.007>

Ashburner, J. (2009). Computational anatomy with the SPM software. *Magnetic Resonance Imaging*, 27(8), 1163–1174. <https://doi.org/10.1016/j.mri.2009.01.006>

Ashburner, J., & Friston, K. J. (2000a). Voxel-Based Morphometry—The Methods. *NeuroImage*, 11(6), 805–821. <https://doi.org/10.1006/nimg.2000.0582>

Ashburner, J., & Friston, K. J. (2000b). Voxel-Based Morphometry—The Methods. *NeuroImage*, 11(6), 805–821. <https://doi.org/10.1006/nimg.2000.0582>

Ashburner, J., & Friston, K. J. (2005). Unified segmentation. *NeuroImage*, 26(3), 839–851. <https://doi.org/10.1016/j.neuroimage.2005.02.018>

Ashburner, J., & Friston, K. J. (2009). Computing average shaped tissue probability templates. *NeuroImage*, 45(2), 333–341. <https://doi.org/10.1016/j.neuroimage.2008.12.008>

Ashburner, J., & Klöppel, S. (2011). Multivariate models of inter-subject anatomical variability. *NeuroImage*, 56(2), 422–439. <https://doi.org/10.1016/j.neuroimage.2010.03.059>

Attwell, D., & Iadecola, C. (2002). The neural basis of functional brain imaging signals. *Trends in Neurosciences*, 25(12), 621–625.
[https://doi.org/10.1016/S0166-2236\(02\)02264-6](https://doi.org/10.1016/S0166-2236(02)02264-6)

Barnes, J., Foster, J., Boyes, R. G., Pepple, T., Moore, E. K., Schott, J. M., Frost, C., Scahill, R. I., & Fox, N. C. (2008). A comparison of methods for the automated calculation of volumes and atrophy rates in the hippocampus. *NeuroImage*, 40(4), 1655–1671.
<https://doi.org/10.1016/j.neuroimage.2008.01.012>

Buxton, R. B. (2002). *Introduction to Functional Magnetic Resonance Imaging: Principles and Techniques*. Cambridge University Press.

<http://dx.doi.org/10.1017/CBO9780511549854>

Buxton, R. B., Uludağ, K., Dubowitz, D. J., & Liu, T. T. (2004). Modeling the hemodynamic response to brain activation. *NeuroImage*, 23, S220-S233.
<https://doi.org/10.1016/j.neuroimage.2004.07.013>

By:van Buchem, MA (van Buchem, MA); Tofts, PS (Tofts, PS). (2000). Magnetization transfer imaging. *NEUROIMAGING CLINICS OF NORTH AMERICA* – *NEUROIMAGING CLINICS OF NORTH AMERICA*, 10(4).
http://apps.webofknowledge.com/full_record.do?product=UA&search_mode=GeneralSearch&qid=3&SID=S12r93sw8L3b7BInz7B&page=1&doc=1

Chupin, M., Mukuna-Bantumbakulu, A. R., Hasboun, D., Bardinet, E., Baillet, S., Kinkingnédéhun, S., Lemieux, L., Dubois, B., & Garner, L. (2007). Anatomically constrained region deformation for the automated segmentation of the hippocampus and the amygdala: Method and validation on controls and patients with Alzheimer's disease. *NeuroImage*, 34(3), 996–1019. <https://doi.org/10.1016/j.neuroimage.2006.10.035>

Daunizeau, J., Lemieux, L., Vaudano, A. E., Friston, K. J., & Stephan, K. E. (2013). An electrophysiological validation of stochastic DCM for fMRI. *Frontiers in Computational Neuroscience*, 6. <https://doi.org/10.3389/fncom.2012.00103>

Dynamic magnetic resonance imaging of human brain activity during primary sensory stimulation. (15 C.E.). Proceedings of the National Academy of Sciences of the United States of America, 89(12). <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC49355/>

Edelman, R. R., Hesselink, J. R., & Zlatkin, M. B. (1996). MRI: clinical magnetic resonance imaging volume 1 (2nd ed). Saunders.

FIRST - FslWiki. (n.d.). <http://fsl.fmrib.ox.ac.uk/fsl/fslwiki/FIRST>

Fischl, B., & Dale, A. M. (2000). Measuring the thickness of the human cerebral cortex from magnetic resonance images. *Proceedings of the National Academy of Sciences*, 97(20), 11050–11055. <https://doi.org/10.1073/pnas.200033797>

Friston, K. J., Harrison, L., & Penny, W. (2003). Dynamic causal modelling. *NeuroImage*, 19 (4), 1273–1302. [https://doi.org/10.1016/S1053-8119\(03\)00202-7](https://doi.org/10.1016/S1053-8119(03)00202-7)

Friston, K., & Penny, W. (2011). Post hoc Bayesian model selection. *NeuroImage*, 56(4), 2089–2099. <https://doi.org/10.1016/j.neuroimage.2011.03.062>

Glover, G. H., Li, T.-Q., & Ress, D. (2000). Image-based method for retrospective correction of physiological motion effects in fMRI: RETROICOR. *Magnetic Resonance in Medicine*, 44 (1), 162–167.
[https://doi.org/10.1002/1522-2594\(200007\)44:1<162::AID-MRM23>3.0.CO;2-E](https://doi.org/10.1002/1522-2594(200007)44:1<162::AID-MRM23>3.0.CO;2-E)

Golay, Xavier PhD*. (n.d.). Perfusion Imaging Using Arterial Spin Labeling. *Topics in Magnetic Resonance Imaging*, 15(1), 10–27.
<http://ovidsp.ovid.com/ovidweb.cgi?T=JS&CSC=Y&NEWS=N&PAGE=fulltext&AN=00002142-200402000-00003&LSLINK=80&D=ovft>

Good, C. D., Johnsrude, I. S., Ashburner, J., Henson, R. N. A., Friston, K. J., & Frackowiak, R.

S. J. (2001). A Voxel-Based Morphometric Study of Ageing in 465 Normal Adult Human Brains. *NeuroImage*, 14(1), 21–36. <https://doi.org/10.1006/nimg.2001.0786>

Hobbs, N. Z., Pedrick, A. V., Say, M. J., Frost, C., Dar Santos, R., Coleman, A., Sturrock, A., Craufurd, D., Stout, J. C., Leavitt, B. R., Barnes, J., Tabrizi, S. J., & Scahill, R. I. (2011). The structural involvement of the cingulate cortex in premanifest and early Huntington's disease. *Movement Disorders*, 26(9), 1684–1690. <https://doi.org/10.1002/mds.23747>

Huettel, S. A., Song, A. W., & McCarthy, G. (2014). Functional magnetic resonance imaging (Third edition). Sinauer Associates, Inc., Publishers.

Human Brain Function. (n.d.). <http://www.fil.ion.ucl.ac.uk/spm/doc/books/hbf1/>

Jezzard, P., & Balaban, R. S. (1995). Correction for geometric distortion in echo planar images from B0 field variations. *Magnetic Resonance in Medicine*, 34(1), 65–73. <https://doi.org/10.1002/mrm.1910340111>

Jezzard, P., Matthews, P. M., & Smith, S. M. (2001). Functional magnetic resonance imaging: an introduction to methods. Oxford University Press.

Johansen-Berg, H., & Behrens, T. E. J. (Eds.). (2014). Diffusion MRI: from quantitative measurement to in vivo neuroanatomy (Second edition). Academic Press. <http://www.sciencedirect.com/science/book/9780123964601>

John Detre's slides on ASL fMRI. (n.d.). <https://cfn.upenn.edu/perfusion/index.htm>

Johnson, G. (n.d.). Absolute Beginners Guide to Perfusion MRI. <http://cds.ismrm.org/ismrm-2008/files/Syllabus-036.pdf>

Jones, D. K. (2011). Diffusion MRI: theory, methods, and applications. Oxford University Press.

Kahan, J., & Foltynie, T. (2013). Understanding DCM: Ten simple rules for the clinician. *NeuroImage*, 83, 542–549. <https://doi.org/10.1016/j.neuroimage.2013.07.008>

Le Bihan, D. (2003). Looking into the functional architecture of the brain with diffusion MRI. *Nature Reviews Neuroscience*, 4(6), 469–480. <https://doi.org/10.1038/nrn1119>

Li, B., Daunizeau, J., Stephan, K. E., Penny, W., Hu, D., & Friston, K. (2011). Generalised filtering and stochastic DCM for fMRI. *NeuroImage*, 58(2), 442–457. <https://doi.org/10.1016/j.neuroimage.2011.01.085>

Logothetis, N. K. (2008a). What we can do and what we cannot do with fMRI. *Nature*, 453 (7197), 869–878. <https://doi.org/10.1038/nature06976>

Logothetis, N. K. (2008b). What we can do and what we cannot do with fMRI. *Nature*, 453 (7197), 869–878. <https://doi.org/10.1038/nature06976>

Marreiros, A. C., Kiebel, S. J., & Friston, K. J. (2008). Dynamic causal modelling for fMRI: A two-state model. *NeuroImage*, 39(1), 269–278. <https://doi.org/10.1016/j.neuroimage.2007.08.019>

Mechelli, A. (2005). Structural Covariance in the Human Cortex. *Journal of Neuroscience*, 25(36), 8303–8310. <https://doi.org/10.1523/JNEUROSCI.0357-05.2005>

Mechelli, A., Price, C., Friston, K., & Ashburner, J. (2005). Voxel-Based Morphometry of the Human Brain: Methods and Applications. *Current Medical Imaging Reviews*, 1(2), 105–113. <https://doi.org/10.2174/1573405054038726>

Norris, D. G. (2006). Principles of magnetic resonance assessment of brain function. *Journal of Magnetic Resonance Imaging*, 23(6), 794–807. <https://doi.org/10.1002/jmri.20587>

Parkes, L. M., & Detre, J. A. (2003). ASL: Blood Perfusion Measurements Using Arterial Spin Labelling. In P. Tofts (Ed.), *Quantitative MRI of the Brain* (pp. 455–473). John Wiley & Sons, Ltd. <https://doi.org/10.1002/0470869526.ch13>

Pennec, X., Cachier, P., & Ayache, N. (1999). Understanding the "Demon's Algorithm": 3D Non-rigid Registration by Gradient Descent. In C. Taylor & A. Colchester (Eds.), *Medical Image Computing and Computer-Assisted Intervention – MICCAI'99* (Vol. 1679, pp. 597–605). Springer Berlin Heidelberg. https://doi.org/10.1007/10704282_64

Questions and Answers in MRI. (n.d.). <http://mri-q.com/index.html>

Razi, A., Kahan, J., Rees, G., & Friston, K. J. (2015). Construct validation of a DCM for resting state fMRI. *NeuroImage*, 106, 1–14. <https://doi.org/10.1016/j.neuroimage.2014.11.027>

Rohlfing, T. (2012). Image Similarity and Tissue Overlaps as Surrogates for Image Registration Accuracy: Widely Used but Unreliable. *IEEE Transactions on Medical Imaging*, 31(2), 153–163. <https://doi.org/10.1109/TMI.2011.2163944>

Rosa, M. J., Friston, K., & Penny, W. (2012). Post-hoc selection of dynamic causal models. *Journal of Neuroscience Methods*, 208(1), 66–78. <https://doi.org/10.1016/j.jneumeth.2012.04.013>

Rueckert, D., Sonoda, L. I., Hayes, C., Hill, D. L. G., Leach, M. O., & Hawkes, D. J. (1999). Nonrigid registration using free-form deformations: application to breast MR images. *IEEE Transactions on Medical Imaging*, 18(8), 712–721. <https://doi.org/10.1109/42.796284>

Schmitz, C., & Hof, P. R. (2005). Design-based stereology in neuroscience. *Neuroscience*, 130(4), 813–831. <https://doi.org/10.1016/j.neuroscience.2004.08.050>

Stephan, K. E. (2004). On the role of general system theory for functional neuroimaging. *Journal of Anatomy*, 205(6), 443–470. <https://doi.org/10.1111/j.0021-8782.2004.00359.x>

Stephan, K. E., Kasper, L., Harrison, L. M., Daunizeau, J., den Ouden, H. E. M., Breakspear, M., & Friston, K. J. (2008). Nonlinear dynamic causal models for fMRI. *NeuroImage*, 42(2), 649–662. <https://doi.org/10.1016/j.neuroimage.2008.04.262>

Stephan, K. E., Penny, W. D., Moran, R. J., den Ouden, H. E. M., Daunizeau, J., & Friston, K. J. (2010). Ten simple rules for dynamic causal modeling. *NeuroImage*, 49(4), 3099–3109. <https://doi.org/10.1016/j.neuroimage.2009.11.015>

Studholme, C., Hill, D. L. G., & Hawkes, D. J. (1999). An overlap invariant entropy measure of 3D medical image alignment. *Pattern Recognition*, 32(1), 71–86.
[https://doi.org/10.1016/S0031-3203\(98\)00091-0](https://doi.org/10.1016/S0031-3203(98)00091-0)

Tofts, P. & John Wiley & Sons, Ltd. (2003). Quantitative MRI of the brain: measuring changes caused by disease. Wiley. <http://dx.doi.org/10.1002/0470869526>

Triantafyllou, C., Hoge, R. D., Krueger, G., Wiggins, C. J., Potthast, A., Wiggins, G. C., & Wald, L. L. (2005). Comparison of physiological noise at 1.5 T, 3 T and 7 T and optimization of fMRI acquisition parameters. *NeuroImage*, 26(1), 243–250.
<https://doi.org/10.1016/j.neuroimage.2005.01.007>

Weiskopf, N., Hutton, C., Josephs, O., & Deichmann, R. (2006). Optimal EPI parameters for reduction of susceptibility-induced BOLD sensitivity losses: A whole-brain analysis at 3 T and 1.5 T. *NeuroImage*, 33(2), 493–504. <https://doi.org/10.1016/j.neuroimage.2006.07.029>

Wiggins, G. C., Triantafyllou, C., Potthast, A., Reykowski, A., Nittka, M., & Wald, L. L. (2006). 32-channel 3 Tesla receive-only phased-array head coil with soccer-ball element geometry. *Magnetic Resonance in Medicine*, 56(1), 216–223.
<https://doi.org/10.1002/mrm.20925>

Wright, I. C., McGuire, P. K., Poline, J.-B., Traver, J. M., Murray, R. M., Frith, C. D., Frackowiak, R. S. J., & Friston, K. J. (1995). A Voxel-Based Method for the Statistical Analysis of Gray and White Matter Density Applied to Schizophrenia. *NeuroImage*, 2(4), 244–252. <https://doi.org/10.1006/nimg.1995.1032>