

ANIMGN11 / ANIMGN20: Advanced Imaging

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1.

Attwell D, Iadecola C. The neural basis of functional brain imaging signals. Trends in Neurosciences. 2002 Dec;25(12):621-5.

2.

Buxton RB, Uludağ K, Dubowitz DJ, Liu TT. Modeling the hemodynamic response to brain activation. NeuroImage. 2004 Jan;23:S220-33.

3.

Logothetis NK. What we can do and what we cannot do with fMRI. Nature. 2008 Jun 12;453(7197):869-78.

4.

Edelman RR, Hesselink JR, Zlatkin MB. MRI: clinical magnetic resonance imaging volume 1. 2nd ed. Philadelphia: Saunders; 1996.

5.

Logothetis NK. What we can do and what we cannot do with fMRI. Nature. 2008 Jun 12;453(7197):869-78.

6.

Dynamic magnetic resonance imaging of human brain activity during primary sensory stimulation. Proceedings of the National Academy of Sciences of the United States of

America [Internet]. 15AD;89(12). Available from:
<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC49355/>

7.

Norris DG. Principles of magnetic resonance assessment of brain function. *Journal of Magnetic Resonance Imaging*. 2006 Jun;23(6):794–807.

8.

Jezzard P, Matthews PM, Smith SM. *Functional magnetic resonance imaging: an introduction to methods*. Oxford: Oxford University Press; 2001.

9.

Buxton RB. *Introduction to Functional Magnetic Resonance Imaging: Principles and Techniques* [Internet]. Cambridge: Cambridge University Press; 2002. Available from:
<http://dx.doi.org/10.1017/CBO9780511549854>

10.

Huettel SA, Song AW, McCarthy G. *Functional magnetic resonance imaging*. Third edition. Sunderland, Massachusetts, U.S.A.: Sinauer Associates, Inc., Publishers; 2014.

11.

Human Brain Function [Internet]. Available from:
<http://www.fil.ion.ucl.ac.uk/spm/doc/books/hbf1/>

12.

Triantafyllou C, Hoge RD, Krueger G, Wiggins CJ, Potthast A, Wiggins GC, et al. Comparison of physiological noise at 1.5 T, 3 T and 7 T and optimization of fMRI acquisition parameters. *NeuroImage*. 2005 May;26(1):243–50.

13.

Wiggins GC, Triantafyllou C, Potthast A, Reykowski A, Nittka M, Wald LL. 32-channel 3

Tesla receive-only phased-array head coil with soccer-ball element geometry. *Magnetic Resonance in Medicine*. 2006 Jul;56(1):216–23.

14.

Weiskopf N, Hutton C, Josephs O, Deichmann R. Optimal EPI parameters for reduction of susceptibility-induced BOLD sensitivity losses: A whole-brain analysis at 3 T and 1.5 T. *NeuroImage*. 2006 Nov;33(2):493–504.

15.

Glover GH, Li TQ, Ress D. Image-based method for retrospective correction of physiological motion effects in fMRI: RETROICOR. *Magnetic Resonance in Medicine*. 2000 Jul;44(1):162–7.

16.

Jezzard P, Balaban RS. Correction for geometric distortion in echo planar images from B0 field variations. *Magnetic Resonance in Medicine*. 1995 Jul;34(1):65–73.

17.

Andersson JLR, Hutton C, Ashburner J, Turner R, Friston K. Modeling Geometric Deformations in EPI Time Series. *NeuroImage*. 2001 May;13(5):903–19.

18.

Friston KJ, Harrison L, Penny W. Dynamic causal modelling. *NeuroImage*. 2003 Aug;19(4):1273–302.

19.

Stephan KE. On the role of general system theory for functional neuroimaging. *Journal of Anatomy*. 2004 Dec;205(6):443–70.

20.

Kahan J, Foltynie T. Understanding DCM: Ten simple rules for the clinician. *NeuroImage*.

2013 Dec;83:542–9.

21.

Stephan KE, Penny WD, Moran RJ, den Ouden HEM, Daunizeau J, Friston KJ. Ten simple rules for dynamic causal modeling. *NeuroImage*. 2010 Feb;49(4):3099–109.

22.

Marreiros AC, Kiebel SJ, Friston KJ. Dynamic causal modelling for fMRI: A two-state model. *NeuroImage*. 2008 Jan;39(1):269–78.

23.

Stephan KE, Kasper L, Harrison LM, Daunizeau J, den Ouden HEM, Breakspear M, et al. Nonlinear dynamic causal models for fMRI. *NeuroImage*. 2008 Aug;42(2):649–62.

24.

Li B, Daunizeau J, Stephan KE, Penny W, Hu D, Friston K. Generalised filtering and stochastic DCM for fMRI. *NeuroImage*. 2011 Sep;58(2):442–57.

25.

Daunizeau J, Lemieux L, Vaudano AE, Friston KJ, Stephan KE. An electrophysiological validation of stochastic DCM for fMRI. *Frontiers in Computational Neuroscience*. 2013;6.

26.

Friston K, Penny W. Post hoc Bayesian model selection. *NeuroImage*. 2011 Jun;56(4):2089–99.

27.

Rosa MJ, Friston K, Penny W. Post-hoc selection of dynamic causal models. *Journal of Neuroscience Methods*. 2012 Jun;208(1):66–78.

28.

Razi A, Kahan J, Rees G, Friston KJ. Construct validation of a DCM for resting state fMRI. *NeuroImage*. 2015 Feb;106:1–14.

29.

Jones DK. *Diffusion MRI: theory, methods, and applications*. New York: Oxford University Press; 2011.

30.

Johansen-Berg H, Behrens TEJ, editors. *Diffusion MRI: from quantitative measurement to in vivo neuroanatomy* [Internet]. Second edition. Amsterdam: Academic Press; 2014. Available from: <http://www.sciencedirect.com/science/book/9780123964601>

31.

Le Bihan D. Looking into the functional architecture of the brain with diffusion MRI. *Nature Reviews Neuroscience*. 2003 Jun;4(6):469–80.

32.

Questions and Answers in MRI [Internet]. Available from: <http://mri-q.com/index.html>

33.

Artifacts in Diffusion MRI [Internet]. Available from: http://stbb.nichd.nih.gov/pdf/9780195369779_Jone-Pierpaoli.pdf

34.

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

35.

Parkes LM, Detre JA. ASL: Blood Perfusion Measurements Using Arterial Spin Labelling. In: Tofts P, editor. Quantitative MRI of the Brain [Internet]. Chichester, UK: John Wiley & Sons, Ltd; 2003. p. 455–73. Available from: <http://doi.wiley.com/10.1002/0470869526.ch13>

36.

Johnson G. Absolute Beginners Guide to Perfusion MRI [Internet]. Available from: <http://cds.ismrm.org/ismrm-2008/files/Syllabus-036.pdf>

37.

John Detre's slides on ASL fMRI [Internet]. Available from: <https://cfn.upenn.edu/perfusion/index.htm>

38.

Tofts P, John Wiley & Sons, Ltd. Quantitative MRI of the brain: measuring changes caused by disease [Internet]. Chichester, West Sussex: Wiley; 2003. Available from: <http://dx.doi.org/10.1002/0470869526>

39.

By:van Buchem, MA (van Buchem, MA); Tofts, PS (Tofts, PS). Magnetization transfer imaging. NEUROIMAGING CLINICS OF NORTH AMERICA NEUROIMAGING CLINICS OF NORTH AMERICA [Internet]. 2000;10(4). Available from: http://apps.webofknowledge.com/full_record.do?product=UA&search_mode=GeneralSearch&qid=3&SID=S12r93sw8L3b7Blnz7B&page=1&doc=1

40.

Schmitz C, Hof PR. Design-based stereology in neuroscience. Neuroscience. 2005 Jan;130(4):813–31.

41.

Hobbs NZ, Pedrick AV, Say MJ, Frost C, Dar Santos R, Coleman A, et al. The structural involvement of the cingulate cortex in premanifest and early Huntington's disease. Movement Disorders. 2011 Aug 1;26(9):1684–90.

42.

Chupin M, Mukuna-Bantumbakulu AR, Hasboun D, Bardinet E, Baillet S, Kinkingnéhun S, et al. 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*. 2007 Feb;34(3):996–1019.

43.

Ashburner J, Friston KJ. Voxel-Based Morphometry—The Methods. *NeuroImage*. 2000 Jun;11(6):805–21.

44.

Barnes J, Foster J, Boyes RG, Pepple T, Moore EK, Schott JM, et al. A comparison of methods for the automated calculation of volumes and atrophy rates in the hippocampus. *NeuroImage*. 2008 May;40(4):1655–71.

45.

Fischl B, Dale AM. Measuring the thickness of the human cerebral cortex from magnetic resonance images. *Proceedings of the National Academy of Sciences*. 2000 Sep 26;97(20):11050–5.

46.

FIRST - FslWiki [Internet]. Available from: <http://fsl.fmrib.ox.ac.uk/fsl/fslwiki/FIRST>

47.

Ashburner J, Klöppel S. Multivariate models of inter-subject anatomical variability. *NeuroImage*. 2011 May;56(2):422–39.

48.

Mechelli A. Structural Covariance in the Human Cortex. *Journal of Neuroscience*. 2005 Sep 7;25(36):8303–10.

49.

Wright IC, McGuire PK, Poline JB, Traverso JM, Murray RM, Frith CD, et al. A Voxel-Based Method for the Statistical Analysis of Gray and White Matter Density Applied to Schizophrenia. *NeuroImage*. 1995 Dec;2(4):244–52.

50.

Ashburner J, Friston KJ. Voxel-Based Morphometry—The Methods. *NeuroImage*. 2000 Jun;11(6):805–21.

51.

Good CD, Johnsrude IS, Ashburner J, Henson RNA, Friston KJ, Frackowiak RSJ. A Voxel-Based Morphometric Study of Ageing in 465 Normal Adult Human Brains. *NeuroImage*. 2001 Jul;14(1):21–36.

52.

Ashburner J, Friston KJ. Unified segmentation. *NeuroImage*. 2005 Jul;26(3):839–51.

53.

Mechelli A, Price C, Friston K, Ashburner J. Voxel-Based Morphometry of the Human Brain: Methods and Applications. *Current Medical Imaging Reviews*. 2005 Jun 1;1(2):105–13.

54.

Ashburner J. A fast diffeomorphic image registration algorithm. *NeuroImage*. 2007 Oct;38(1):95–113.

55.

Ashburner J, Friston KJ. Computing average shaped tissue probability templates. *NeuroImage*. 2009 Apr;45(2):333–41.

56.

Ashburner J. Computational anatomy with the SPM software. Magnetic Resonance Imaging. 2009 Oct;27(8):1163–74.

57.

Studholme C, Hill DLG, Hawkes DJ. An overlap invariant entropy measure of 3D medical image alignment. Pattern Recognition. 1999 Jan;32(1):71–86.

58.

Pennec X, Cachier P, Ayache N. Understanding the "Demon's Algorithm": 3D Non-rigid Registration by Gradient Descent. In: Taylor C, Colchester A, editors. Medical Image Computing and Computer-Assisted Intervention – MICCAI'99 [Internet]. Berlin, Heidelberg: Springer Berlin Heidelberg; 1999. p. 597–605. Available from: http://link.springer.com/10.1007/10704282_64

59.

Rueckert D, Sonoda LI, Hayes C, Hill DLG, Leach MO, Hawkes DJ. Nonrigid registration using free-form deformations: application to breast MR images. IEEE Transactions on Medical Imaging. 1999;18(8):712–21.

60.

Rohlfing T. Image Similarity and Tissue Overlaps as Surrogates for Image Registration Accuracy: Widely Used but Unreliable. IEEE Transactions on Medical Imaging. 2012 Feb;31(2):153–63.