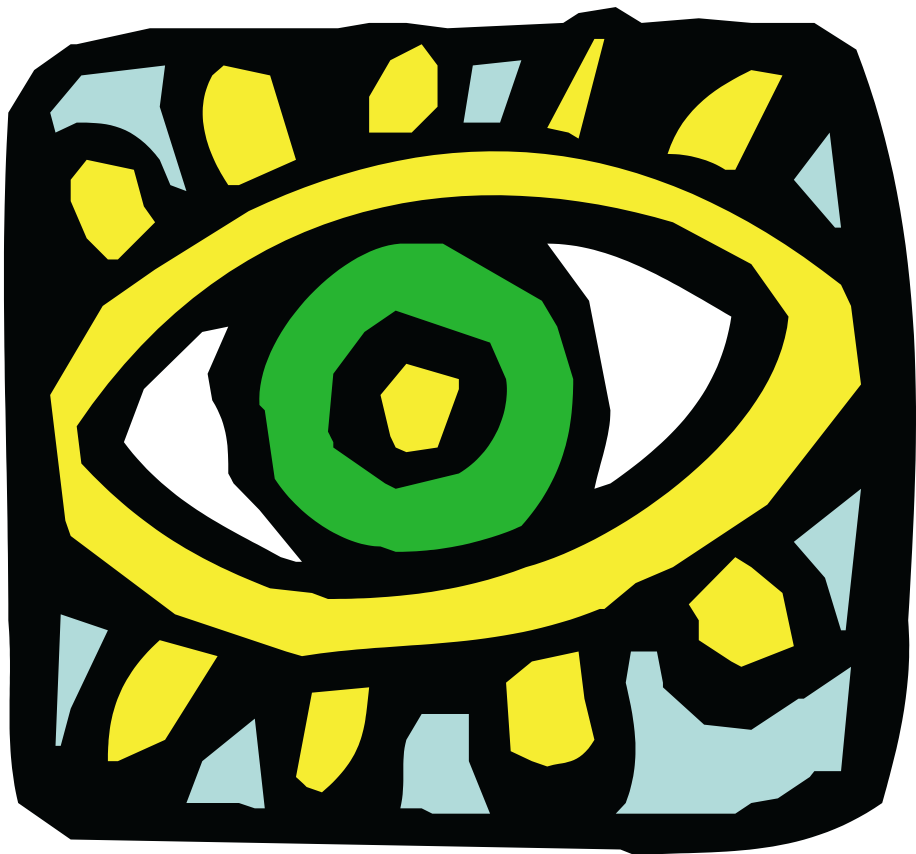


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Applied Vision
Association*



John Dalton's eyes
Natural Images meeting
References on Vision

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APPLIED VISION ASSOCIATION

APPLIED VISION ASSOCIATION
42 CRAVEN STREET
LONDON WC2N 5NG
Tel: 020-7839-6000 Fax: 020-7839-6800

ava@college-optometrists.org

THE APPLIED VISION ASSOCIATION IS A REGISTERED CHARITY NO: 1049146

COMMITTEE OF MANAGEMENT

Chairman: Dr Mark Scase, Dept Human Communication,
De Montfort University, Leicester, LE7 9SU.
Tel. 0116 257 7811 Fax. 0116 257 7708
email: mscase@dmu.ac.uk

Vice chair: Dr Tim Meese, University of Aston
Tel: 0121 359 3611 x5421 Fax: 0121 333 4220
email: t.s.meese@aston.ac.uk

Treasurer: Dr Patrick Ward, DERA, Farnborough.
Tel: 01252 393583 Fax: 01252 392097
email: paward@dera.gov.uk

Bulletin of the AVA: Dr Mark Scase, Dept Human Communication,
De Montfort University, Leicester, LE7 9SU.
Tel. 0116 257 7811 Fax. 0116 257 7767
email: mscase@dmu.ac.uk

Publicity Officer: Dr David Simmons, University of Glasgow,
Tel. 0141 330 3612 Fax. 0141 330 3987
email: D.R.Simmons@psy.gla.ac.uk

Members: Professor Stephen Anderson, Aston University.
Tel. 0121 359 3611 Fax. 0121 359 4498
email: s.j.anderson@aston.ac.uk

Dr Ian R. Moorhead, DERA, Ft Halstead
email: I_Moorhead@dera.gov.uk
Tel: 01959 514426 (work) 0468 431908 (mobile)

Dr Graham Edgar, Sowerby Research Centre,
British Aerospace PLC, FPC 267, P.O.Box 5, Filton,
Bristol BS12 7QW.
Tel:0117 9366192 Fax: 0117 9363733
email: graham.edgar@src.bae.co.uk

Dr Mark Bradshaw, University of Surrey.
Tel: 01483 300800 x3014 Fax: 01483 532813
email: M.Bradshaw@surrey.ac.uk

Dr Sarah Waugh, University of Aston
Tel: 0121 359 3611 ext 5425
email: s.j.waugh@aston.ac.uk

Mr Andrew Welchman, University of Newcastle
email: A.E.Welchman@ncl.ac.uk

Dr Keith Langley, UCL, London
email: kl@psychol.ucl.ac.uk

AVA Secretariat:

Mr Nick de Brunner, College of Optometrists
Tel: 020 7839 6000 Fax: 020 7839 6800
email: ndebrunner@college-optometrists.org

AVA CORPORATE MEMBERS:

Data Cell Ltd., S C House, Van Wall Business Park, Maidenhead, Berks., SL6 4UB.
Contact: Mr Giles Doe.

TNO Human Factors Research Institute, P.O.Box 23, 3769 ZG Soesterberg, The
Netherlands. Contact: Dr J.M. Valetou.

National Illumination Committee of Great Britain, c/o CIBSE, Delta House, 222 Balham
High Road, London SW12 9BS.

Dutch Working Group Ergophthalmology, c/o NORI, Meibergdreef 47, 1105 BA,
Amsterdam, The Netherlands. Contact: Dr T. J. T. van den Berg.

Pilkington Optronics, Glascoed Rd., St Asaph, Denbighshire, LL17 0LL Contact: Mr J.
Foley.

Sowerby Research Centre, British Aerospace, P.O.Box 5, Filton, Bristol BS12 7QW.
Contact: Dr KT.Carr.

*AIM OF THE AVA: TO PROMOTE AND ADVANCE THE APPLICATION
OF RESEARCH WORK IN ALL AREAS RELATED TO VISION*



Noticeboard



AVA on the Internet

The Applied Vision Association now has its own world wide web pages at:
<http://www.dmu.ac.uk/ava/>

The pages contain details of who is on the committee, contact emails, latest details on forthcoming AVA meetings and links to other vision related pages. There are also archives of abstracts from previous AVA meetings.

There is also an AVA anonymous ftp site at: <ftp://hc.les.dmu.ac.uk>

This site contains:

- a hyperspectral data set of natural scenes produced by Gavin Brelstaff (see <http://www.crs4.it/~gjb/ftpJOSA.html>).
- David Foster's bootstrap program for estimating the accuracy of a statistical estimate derived from a set of experimental data (see <http://www.op.umist.ac.uk/bootstrap.html>).

If there is anything else you think this archive should contain then let us know.

AVA and OPO Subscriptions

Membership for 1999/2000 will be as follows: ordinary members £18, student members £9. Those members who pay by standing order for the AVA and Ophthalmic and Physiological Optics please check that the correct amount is being paid to the AVA.

Editorial

Something of a quite issue this time. In this issue as well as the usual selected references we have details of the forthcoming AVA Natural Images III conference. Furthermore, if any of you have interesting experiments you'd like to perform on John Dalton's eyes then contact the Museum of Science and Industry in Manchester. If you have any comments on the Bulletin of the AVA then do contact me: mscase@dmu.ac.uk

Deadline for copy for the next Bulletin - 18th August 2000

Geoffrey J. Burton Memorial Fund

The fund was established in 1986 with the aim of providing financial assistance to students (postgraduates studying for a higher degree or first-year postdoctoral junior scientists) based in the UK travelling to any conferences or meetings at which they will be presenting a paper or poster. Donations to the fund can be directed to the AVA secretariat and cheques etc. should be made payable to "The Geoffrey J. Burton Memorial Fund".

The maximum award to any one individual is £400.

The AVA Committee has decided that from now on there will be a single award made once a year. The closing date for awards will be the last day in February each year and will be for conferences held from 1st March to the end of the following February (i.e. there will not be retrospective awards). Applicants do not have to be presenting at an AVA conference.

The next closing date for applications is:

28th February 2001

for conferences held between 1st March 2001 and 28th February 2002.

To apply for an award you need to complete an application form which is available from:

The AVA Secretariat,
College of Optometrists,
42 Craven Street,
London,
WC2N 5NG.

A PDF format version of the application form is available on the AVA web site at:

<http://www.dmu.ac.uk/ava/>

Natural Images III - Bristol, 15 Sept 2000

Call for Papers

The Applied Vision Association is pleased to announce the 3rd one day Meeting on Natural Images will be held at the University of Bristol on Friday 15th September 2000. The meeting is being arranged as a "satellite" to the British Machine Vision Conference.

<http://www.cs.bris.ac.uk/Events/BMVC2000/>

Papers are invited on all aspects of Natural Image Processing, both Human and Machine, including the following topics :-

- Image Statistics
- Higher Order Statistics
- Models of Human Vision applied to Natural Images
- Image Segmentation Methods
- Other issues involving the perception of natural scenes

Abstracts should be no longer than 250 words. The submission deadline is 4th August 2000.

For further information and abstract submission please contact:-

Dr Tom Troscianko
Dept of Psychology
University of Bristol
8 Woodland Road
Bristol BS8
Tel. 0117 928 8565
Email Tom.Troscianko@bristol.ac.uk

Dr Ian Moorhead
Centre for Human Sciences
Fort Halstead
Sevenoaks
Kent TN14 7BP
Tel. 01959 514426
Email: I_Moorhead@dera.gov.uk

John Dalton's Eyes

Chris Dickinson (mjccmd@fs1.op.umist.ac.uk) writes:

Participants at the John Dalton Conference in 1994 will remember that the Manchester Museum of Science And Industry holds a number of items relating to Dalton in the private archive - including his eyes. The Museum's reason for keeping the eyes is to enable research into colour vision and, at the time of the Conference, permission was granted for a sample to be taken from the eyes for DNA analysis. The Museum would like to publicise the existence and availability of the eyes as widely as possible within the research community, and encourage their use for suitable research purposes. Access to the eyes would not be permitted on any other grounds.

If you would be interested in using Dalton's eyes for research purposes, please contact:

The Curator of Science
Museum of Science and Industry
Liverpool Road
Manchester
M3 4FP

Tel: +44 (0)161 832 2244

Fax: +44 (0)161 834 5135

website: www.msim.org.uk

AVA books for sale

The AVA still has a number of new books for sale from conferences that it has organised over the years.

Payment can be by cheque or postal order in UK pounds (sorry, no credit cards) to "Applied Vision Association". Send your payment with the order to:

AVA Secretariat,
Applied Vision Association,
College of Optometrists,
42 Craven Street,
London WC2N 5NG.

Books available:

The cost for each book is £15 (including postage in the UK) for AVA members or £20 for non-AVA members. If you are outside the UK then add £5 per book to each of the prices above.

Gale, A.S., Astley, S.M., Dance, D.R. and Cairns, A.Y. (1994) **Digital Mammography**. Elsevier (424 pages).

Gale, A.S., Brown, I.D., Haslegrave, C.M., Krusysse, H.W. and Taylor, S.P. (1993) **Vision in Vehicles IV**. North Holland (355 pages).

Brogan, D., Gale, A. and Carr, K. (1993) **Visual Search 2**. Taylor and Francis (477 pages).

The cost of the Dalton conference book is £43 (including postage in the UK) for AVA members or £48 for non-AVA members. If you are outside the UK then add £5 per book.

Dickinson, C., Murray, I. and Carden, D. (1996) **John Dalton's Colour Vision Legacy**. Taylor and Francis (784 pages).



Selected References



- Asymmetry in primary visual cortex: nondyslexic versus dyslexic brains. (2000). *Neuroscientist*, 6(2), 69.
- Altemeier, W. A. (2000). Preschool vision screening: The importance of the two-line difference. *Pediatric Annals*, 29(5), 264 (263 pages).
- Altpeter, E., Mackeben, M., & TrauzettelKlosinski, S. (2000). The importance of sustained attention for patients with maculopathies. *Vision Research*, 40(10-12), 1539-1547.
- Andersen, R. (2000). Coding of visual and auditory space in the posterior parietal cortex. *Journal of Cognitive Neuroscience(SS)*, 11.
- Aufrere, R., Chapuis, R., & Chausse, F. (2000). A dynamic vision algorithm to locate a vehicle on a nonstructured road. *International Journal of Robotics Research*, 19(5), 411-423.
- Baldassi, S., & Burr, D. C. (2000). Feature-based integration of orientation signals in visual search. *Vision Research*, 40(10-12), 1293-1300.
- Bertera, J. H., & Rayner, K. (2000). Eye movements and the span of the effective stimulus in visual search. *Perception & Psychophysics*, 62(3), 576-585.
- Bimler, D., Kirkland, J., & Jacobs, R. (2000). Colour-vision tests considered as a special case of multidimensional scaling. *Color Research and Application*, 25(3), 160-169.
- Birch, E. E., & Swanson, W. H. (2000). Hyperacuity deficits in anisometric and strabismic amblyopes with known ages of onset. *Vision Research*, 40(9), 1035-1040.
- Bonneh, Y., & Merzenich, M. (2000). Rapid and focused attention develops as a visual skill through reading. *Journal of Cognitive Neuroscience(SS)*, D5.
- Born, A. P., Miranda, M. J., Rostrup, E., Toft, P. B., Peitersen, B., Larsson,

H. B. W., & Lou, H. C. (2000). Functional magnetic resonance imaging of the normal and abnormal visual system in early life. *Neuropediatrics*, *31*(1), 24-32.

Borojerd, B., Bushara, K. O., Corwell, B., Immisch, I., Battaglia, F., Muellbacher, W., & Cohen, L. G. (2000). Enhanced excitability of the human visual cortex induced by short-term light deprivation. *Cerebral Cortex*, *10*(5), 529-534.

Brown, G. C., Brown, M. M., & Sharma, S. (2000). Difference between ophthalmologists' and patients' perceptions of quality of life associated with age-related macular degeneration. *Canadian Journal of Ophthalmology-Journal Canadien D Ophtalmologie*, *35*(3), 127-133.

Brown, G. C., Brown, M. M., Sharma, S., & Brown, H. C. (1998). Patient perceptions of quality-of-life associated with bilateral visual loss. *International Ophthalmology*, *22*(5), 307-312.

Campbell, J. L., Spalding, J. A., Mir, F. A., & Birch, J. (2000). Doctors and the assessment of blood glucose testing sticks: does colour blindness matter? *British Journal of General Practice*, *50*(454), 393-395.

Carrasco, M., Penpeci-Talgar, C., & Eckstein, M. (2000). Spatial covert attention increases contrast sensitivity across the CSF: support for signal enhancement. *Vision Research*, *40*(10-12), 1203-1215.

Casagrande, V. A. (2000). Changing views of functional modules in primate visual cortex. *Faseb Journal*, *14*(4), A540.

Chen, A. H., O'Leary, D. J., & Howell, E. R. (2000). Near visual function in young children. Part I: near point of convergence. Part II: amplitude of accommodation. Part III: near heterophoria. *Ophthalmic and Physiological Optics*, *20*(3), 185-198.

Chun, M. M. (2000). Contextual cueing of visual attention. *Trends in Cognitive Sciences*, *4*(5), 170-178.

Churchill, A. J., Vize, C. J., Stewart, O. G., & Backhouse, O. (2000). What factors influence cataract waiting list time? *British Journal of Ophthalmology*, *84*(4), 429-431.

Clifford, C. W. G., & Langley, K. (2000). Recursive implementations of temporal filters for image motion computation. *Biological Cybernetics*, 82(5), 383-390.

Cole, S. R., Beck, R. W., Moke, P. S., Gal, R. L., & Long, D. T. (2000). The National Eye Institute Visual Function Questionnaire: Experience of the ONTT. *Investigative Ophthalmology & Visual Science*, 41(5), 1017-1021.

Cooper, J., Pollak, G. J., Ciuffreda, K. J., Kruger, P., & Feldman, J. (2000). Accommodative and vergence findings in ocular myasthenia: A case analysis. *Journal of Neuro-Ophthalmology*, 20(1), 5-11.

CronlyDillon, J., & Persaud, K. (2000). Blind subjects analyse visual images encoded in sound. *Journal of Physiology-London*, 523(SS), 68-P69.

Culham, J. C., Danckert, J., Hassard, F. A., Nicolle, D. A., & Goodale, M. A. (2000). Reflections on blindsight: Reversed localization in the blind visual field of a hemianope. *Journal of Cognitive Neuroscience*(SS), C8.

Dacey, D. M. (2000). Parallel pathways for spectral coding in primate retina. *Annual Review of Neuroscience*, 23, 743-775.

Davies, R., Brailsford, S., Roderick, P., Canning, C., & Crabbe, D. (2000). Using simulation modelling for evaluating screening services for diabetic retinopathy. *Journal of the Operational Research Society*, 51(4), 476-484.

DellOsso, L. F., & Daroff, R. B. (1998). Two additional scenarios for see-saw nystagmus: Achiasma and hemichiasma. *Journal of Neuro-Ophthalmology*, 18(2), 112-113.

DeNatale, R., Marraffa, M., Morbio, R., Tomazzoli, L., & Bonomi, L. (2000). Visual field defects and normal nerve fiber layer: May they coexist in primary open-angle glaucoma? *Ophthalmologica*, 214(2), 119-121.

Dosher, B. A., & Lu, Z. L. (2000). Mechanisms of perceptual attention in precuing of location. *Vision Research*, 40(10-12), 1269-1292.

Dowling, J. E. (1999). Retinal processing of visual information. *Brain Research Bulletin*, 50(5-6), 317.

Easter, S. S. (2000). Retinal development and the onset of vision in

zebrafish. *Faseb Journal*, 14(4), A302.

Eckert, M. P., & Carter, G. A. (2000). Flowers produce variations in color saturation by arranging petals at oblique and varying angles. *Journal of the Optical Society of America A-Optics Image Science and Vision*, 17(5), 825-830.

Eckstein, M. P., Thomas, J. P., Palmer, J., & Shimozaki, S. S. (2000). A signal detection model predicts the effects of set size on visual search accuracy for feature, conjunction, triple conjunction, and disjunction displays. *Perception & Psychophysics*, 62(3), 425-451.

Fang, M. S. M., Enoch, J. M., Lakshminarayanan, V., Kim, E., Kono, M., Strada, E., & Srinivasan, R. (2000). The three point vernier alignment or acuity test (3Pt VA test): an analysis of variance. *Ophthalmic and Physiological Optics*, 20(3), 220-234.

Faubert, J., & Overbury, O. (2000). Binocular vision in older people with adventitious visual impairment: Sometimes one eye is better than two. *Journal of the American Geriatrics Society*, 48(4), 375-380.

FdezVidal, X. R., RodriguezSanchez, R., Garcia, J. A., & FdezValdivia, J. (2000). Integral opponent-colors features for computing visual target distinctness. *Pattern Recognition*, 33(7), 1179-1198.

Fink, G. R., Driver, J., Rorden, C., Baldeweg, T., & Dolan, R. J. (2000). Neural consequences of competing stimuli in both visual hemifields: A physiological basis for visual extinction. *Annals of Neurology*, 47(4), 440-446.

Frost, N. A., & Sparrow, J. M. (2000). Use of vision tests in clinical decision making about cataract surgery: results of a national survey. *British Journal of Ophthalmology*, 84(4), 432-434.

Galera, C., Lopes, E. J., & vonGrunau, M. (2000). Stimulus segmentation in the visual search task. *Perception & Psychophysics*, 62(3), 505-516.

Gilbert, C., Ito, M., Kapadia, M., & Westheimer, G. (2000). Interactions between attention, context and learning in primary visual cortex. *Vision Research*, 40(10-12), 1217-1226.

- Guillery, R. W. (1999). The visual display of neuronal structure. *Brain Research Bulletin*, 50(5-6), 393-394.
- Hackley, S. A., deLabra, C., Gratton, G., ValleInclan, F., Sarno, A., & Alvarez, A. (2000). Optical and electrical recording of visual cortex during binocular rivalry. *Journal of Cognitive Neuroscience*(SS), A86.
- Hamada, T., Kato, K., & Kawakami, K. (2000). Extracting facial features as in infants. *Pattern Recognition Letters*, 21(5), 407-412.
- Han, S. H., Song, Y., Ding, Y. L., Yund, E. W., & Woods, D. L. (2000). Electrophysiological correlates of visual perceptual grouping in human. *Journal of Cognitive Neuroscience*(SS), A88.
- Hanazawa, A., Komatsu, H., & Murakami, I. (2000). Neural selectivity for hue and saturation of colour in the primary visual cortex of the monkey. *European Journal of Neuroscience*, 12(5), 1753-1763.
- Harris, J. P., & Wink, B. (2000). Invariance of the perceived spatial frequency shift of peripherally viewed gratings with manipulations of contrast, duration, and luminance. *Vision Research*, 40(8), 931-941.
- Hazel, C. A., Petre, K. L., Armstrong, R. A., Benson, M. T., & Frost, N. A. (2000). Visual function and subjective quality of life compared in subjects with acquired macular disease. *Investigative Ophthalmology & Visual Science*, 41(6), 1309-1315.
- Hendry, S. H. C., & Reid, R. C. (2000). The koniocellular pathway in primate vision. *Annual Review of Neuroscience*, 23, 127-153.
- Heran, F., Laloum, L., Koskas, P., Williams, M., & Piekarski, J. D. (1999). Low visual acuity, visual field disorders: adapting optical pathway imaging to clinical findings. *Journal of Neuroradiology*, 26(4), 215-224.
- Hoogenraad, T. U. (2000). Right hemiparalexia vera: word blindness for the right part of words despite normal fields of vision. *Neuro-Ophthalmology*, 23(1), 21-27.
- Hung, G. K., & Ciuffreda, K. J. (2000). Quantitative analysis of the effect of near lens addition on accommodation and myopigenesis. *Current Eye Research*, 20(4), 293-312.

Hung, L. F., Wallman, J., & Smith, E. L. (2000). Vision-dependent changes in the choroidal thickness of macaque monkeys. *Investigative Ophthalmology & Visual Science*, *41*(6), 1259-1269.

Itti, L., & Koch, C. (2000). A saliency-based search mechanism for overt and covert shifts of visual attention. *Vision Research*, *40*(10-12), 1489-1506.

Jaaskelainen, A., Sivennoinen, R., Peiponen, K. E., & Raty, J. (2000). On measurement of complex refractive index of liquids by diffractive element-based sensor. *Optics Communications*, *178*(1-3), 53-57.

Jaskowski, P., & Lindner, R. (2000). Registration of subjective temporal order of visual stimuli by eye movements. *Journal of Psychophysiology*, *14*(1), 57.

Kastner, S. (2000). Mechanisms of visual attention in the human cortex. *Journal of Cognitive Neuroscience*(SS), 12.

Kastner, S., DeWeerd, P., & Ungerleider, L. G. (2000). Texture segregation in the human visual cortex: A functional MRI study. *Journal of Neurophysiology*, *83*(4), 2453-2457.

Keller, J., Strasburger, H., Cerutti, D. T., & Sabel, B. A. (2000). Assessing spatial vision - automated measurement of the contrast- sensitivity function in the hooded rat. *Journal of Neuroscience Methods*, *97*(2), 103-110.

Kim, T. S., Lu, Z. L., & Sperling, G. (2000). Spatiotemporal, differences in visual evoked potentials of first- and second-order motion systems. *Journal of Cognitive Neuroscience*(SS), A89.

Kirschfeld, K., & Kammer, T. (2000). Visual attention and metacontrast modify latency to perception in opposite directions. *Vision Research*, *40*(9), 1027-1033.

Knight, R. M., Frisk, V., & Jakobson, L. (2000). The utility of a step-by-step administration of the Rey-Osterrieth Complex Figure in differentiating visual-spatial from visual-motor control problems in young children. *Journal of Cognitive Neuroscience*(SS), B99.

- Kohnen, T., Baumeister, M., & Magdowski, G. (2000). Scanning electron microscopic characteristics of phakic intraocular lenses. *Ophthalmology*, *107*(5), 934-939.
- Kubis, K. C., DaneshMeyer, H., Pribitkin, E. A., & Bilyk, J. R. (2000). Progressive visual loss and ophthalmoplegia. *Survey of Ophthalmology*, *44*(5), 433-441.
- Kuehni, R. G. (2000). Threshold color differences compared to supra-threshold color differences. *Color Research and Application*, *25*(3), 226-229.
- Kulp, M. T., & Edwards, K. (2000). Repeatability of the visual manipulation test. *Optometry and Vision Science*, *77*(4), 194-197.
- Ladavas, E., Farne, A., Zeloni, G., & diPellegrino, G. (2000). Seeing or not seeing where your hands are. *Experimental Brain Research*, *131*(4), 458-467.
- Lappin, J. S., & Craft, W. D. (2000). Foundations of spatial vision: From retinal images to perceived shapes. *Psychological Review*, *107*(1), 6-38.
- LeGrand, R., Mondloch, C. J., Maurer, D., & Brent, H. P. (2000). The effects of early visual deprivation on the development of face processing abilities. *Journal of Cognitive Neuroscience*(SS), 17.
- LesiewskaJunk, H., & Kaluzny, J. (2000). Intraocular lens movement and accommodation in eyes of young patients. *Journal of Cataract and Refractive Surgery*, *26*(4), 562-565.
- Levi, D. M., Klein, S. A., & Carney, T. (2000). Unmasking the mechanisms for Vernier acuity: evidence for a template model for Vernier acuity. *Vision Research*, *40*(8), 951-972.
- Levi, D. M., McGraw, P. V., & Klein, S. A. (2000). Vernier and contrast discrimination in central and peripheral vision. *Vision Research*, *40*(8), 973-988.
- Lim, L., Siow, K. L., Sakamoto, R., Chong, J. S. C., & Tan, D. T. H. (2000). Reverse geometry contact lens wear after photorefractive keratectomy,

- radial keratotomy, or penetrating keratoplasty. *Cornea*, 19(3), 320-324.
- Liu, G. T., Fletcher, D. W., Bishop, R. J., Maguire, M. G., Quinn, G. E., Hendy, P., Zimmerman, R. A., & Haselgrove, J. C. (1998). Variability in visual cortex activation during prolonged functional magnetic resonance imaging. *Journal of Neuro-Ophthalmology*, 18(4), 258-262.
- McFadzean, R. M., Condon, B. C., & Barr, D. B. (1999). Functional magnetic resonance imaging in the visual system. *Journal of Neuro-Ophthalmology*, 19(3), 186-200.
- McGraw, P. V., Winn, B., Gray, L. S., & Elliott, D. B. (2000). Improving the reliability of visual acuity measures in young children. *Ophthalmic and Physiological Optics*, 20(3), 173-184.
- McKendrick, A. M., Vingrys, A. J., Badcock, D. R., & Heywood, J. T. (2000). Visual field losses in subjects with migraine headaches. *Investigative Ophthalmology & Visual Science*, 41(5), 1239-1247.
- McKendrick, A. R., Badcock, D. R., & Vingrys, A. J. (2000). Spatiotemporal filters in the detection of background modulation targets. *Journal of the Optical Society of America A-Optics Image Science and Vision*, 17(5), 836-845.
- Meinhardt, G. (2000). Detection of compound spatial patterns: further evidence for different channel interactions. *Biological Cybernetics*, 82(4), 269-282.
- Mey, J., & Thanos, S. (2000). Development of the visual system of the chick - I. Cell differentiation and histogenesis. *Brain Research Reviews*, 32(2-3), 343-379.
- Montero, V. M. (2000). Attentional activation of the visual thalamic reticular nucleus depends on 'top-down' inputs from the primary visual cortex via corticogeniculate pathways. *Brain Research*, 864(1), 95-104.
- Morimoto, T., Takeuchi, T., Miyata, H., & Hashimoto, Y. (2000). Pattern recognition of fruit shape based on the concept of chaos and neural networks. *Computers and Electronics in Agriculture*, 26(2), 171-186.
- Mortensen, U., & Nachtigall, C. (2000). Visual channels, Hebbian

assemblies and the effect of Hebb's rule. *Biological Cybernetics*, 82(5), 401-413.

Nara, H., Ino, S., & Ifukube, T. (2000). Effects of optokinetic stimulation presented in a wide view on the sense of equilibrium. *Jeice Transactions on Information and Systems*, E83D(4), 937-942.

Negrel, A. D., Maul, E., Pokharel, G. P., Zhao, J. L., & Ellwein, L. B. (2000). Refractive Error Study in Children: Sampling and measurement methods for a multi-country survey. *American Journal of Ophthalmology*, 129(4), 421-426.

Neitz, M., & Neitz, J. (2000). Molecular genetics of color vision and color vision defects. *Archives of Ophthalmology*, 118(5), 691-700.

Nothdurft, H. C. (2000). Saliency from feature contrast: additivity across dimensions. *Vision Research*, 40(10-12), 1183-1201.

Olshausen, B. A., & Field, D. J. (2000). Vision and the coding of natural images. *American Scientist*, 88(3), 238-245.

Ostrovskaya, M. A., Belikov, V. I., & Yarov, I. K. (2000). Comparative analysis of the characteristics of Russian- and Chinese- made binoculars. *Journal of Optical Technology*, 67(3), 275-277.

Palmer, J., Verghese, P., & Pavel, M. (2000). The psychophysics of visual search. *Vision Research*, 40(10-12), 1227-1268.

Parkhurst, D., Culurciello, E., & Niebur, E. (2000). Intact visual search performance with variable resolution displays: Effects of low resolution in the peripheral visual field. *Journal of Cognitive Neuroscience(SS)*, A94.

Poterio, M. B., Cardillo, J. A., DeSenne, F., Pelegriño, R., Jose, N. K., Norato, D. Y. J., & Poterio, G. M. B. (2000). The feasibility of introducing a visual screening test for children during vaccination campaigns. *Journal of Pediatric Ophthalmology & Strabismus*, 37(2), 68-72.

Previc, F. H., Liotti, M., Blakemore, C., Beer, J., & Fox, P. (2000). Functional imaging of brain areas involved in the processing of coherent and incoherent wide field-of-view visual motion. *Experimental Brain Research*, 131(4), 393-405.

- Prince, S. J. D., & Eagle, R. A. (2000). Stereo correspondence in one-dimensional Gabor stimuli. *Vision Research*, *40*(8), 913-924.
- Prince, S. J. D., & Eagle, R. A. (2000). Weighted directional energy model of human stereo correspondence. *Vision Research*, *40*(9), 1143-1155.
- Remigio, D., & Wertenbaker, C. (2000). Post-operative bilateral vision loss. *Survey of Ophthalmology*, *44*(5), 426-432.
- Rezec, A. A., Bosworth, R. G., & Dobkins, K. R. (2000). Lower visual field advantage for motion detection: Perceptual or attentional? *Journal of Cognitive Neuroscience*(SS), D39.
- Sagawa, K. (2000). Visual comfort evaluated by number of categorical colors in a colored image. *Color Research and Application*, *25*(3), 193-199.
- Salyer, D. L., Schofield, A. S., Jasper, B. W., & Fleming, D. E. (2000). Electrocortical correlates of preattentive visual information processing. *Journal of Cognitive Neuroscience*(SS), C42.
- Sano, Y., Carr, J. D., Takei, K., Thompson, K. P., Stulting, R. D., & Waring, G. O. (2000). Videokeratography after excimer laser in situ keptomileusis for myopia. *Ophthalmology*, *107*(4), 674-684.
- Sato, N., & Yano, M. (2000). A model of binocular stereopsis including a global consistency constraint. *Biological Cybernetics*, *82*(5), 357-371.
- Schiffman, R. M., Christianson, M. D., Jacobsen, G., Hirsch, J. D., & Reis, B. L. (2000). Reliability and validity of the ocular surface disease index. *Archives of Ophthalmology*, *118*(5), 615-621.
- Schoenfeld, M. A., Woldorf, M., Mangun, G. R., & Heinze, H. J. (2000). Timing and processing of form-from-motion and form-from-luminance in human visual system. *Journal of Cognitive Neuroscience*(SS), D49.
- Shan, Y., Moster, M. L., Roemer, R. A., & Siegfried, J. B. (2000). Abnormal function of the parvocellular visual system in anisometropic amblyopia. *Journal of Pediatric Ophthalmology & Strabismus*, *37*(2), 73-78.
- Sharma, V., Levi, D. M., & Klein, S. A. (2000). Undercounting features

and missing features: evidence for a high-level deficit in strabismic amblyopia. *Nature Neuroscience*, 3(5), 496-501.

Shen, J. Y., Reingold, E. M., & Pomplun, M. (2000). Distracter ratio influences patterns of eye movements during visual search. *Perception*, 29(2), 241-250.

Shepherd, A., Saunders, K., & McCulloch, D. (1999). Effect of sleep state on the flash visual evoked potential - A case study. *Documenta Ophthalmologica*, 98(3), 247-256.

Shmuel, A., & Grinvald, A. (2000). Coexistence of linear zones and pinwheels within orientation maps in cat visual cortex. *Proceedings of the National Academy of Sciences of the United States of America*, 97(10), 5568-5573.

Smetanin, B. N., & Popov, K. E. (1999). Influence of adaptation to horizontal body position on pointing errors and visual estimation of a target position in humans. *Neurophysiology*, 31(4), 233-238.

Snyder, J. J., & Kingstone, A. (2000). Inhibition of return and visual search: How many separate loci are inhibited? *Perception & Psychophysics*, 62(3), 452-458.

Snyder, J. J., Schmidt, W. C., & Kingstone, A. (2000). Illusory motion reveals early and late processing differences underlying visual extinction. *Journal of Cognitive Neuroscience*(SS), C44.

Spekreijse, H. (2000). Pre-attentive and attentive mechanisms in vision. Perceptual organization and dysfunction. *Vision Research*, 40(10-12), 1179-1182.

Stahl, J. S., Lehmkuhle, M., Wu, K., Burke, B., Saghafi, D., & PeshImam, S. (2000). Prospects for treating acquired pendular nystagmus with servo-controlled optics. *Investigative Ophthalmology & Visual Science*, 41(5), 1084-1090.

Stetter, M., Bartsch, H., & Obermayer, K. (2000). A mean-field model for orientation tuning, contrast saturation, and contextual effects in the primary visual cortex. *Biological Cybernetics*, 82(4), 291-304.

Tassi, P., Pellerin, N., Moessinger, M., Hoeft, A., & Muzet, A. (2000). Visual resolution in humans fluctuates over the 24h period. *Chronobiology International*, *17*(2), 187-195.

Thomasson, M. A., & Teller, D. Y. (2000). Infant color vision: sharp chromatic edges are not required for chromatic discrimination in 4-month-olds. *Vision Research*, *40*(9), 1051-1057.

Toet, A., Bijl, P., & Valeton, J. M. (2000). Test of three visual search and detection models. *Optical Engineering*, *39*(5), 1344-1353.

Truchard, A. M., Ohzawa, I., & Freeman, R. D. (2000). Contrast gain control in the visual cortex: Monocular versus binocular mechanisms. *Journal of Neuroscience*, *20*(8), 3017-3032.

Vanni, S., & Uutela, K. (2000). Foveal attention modulates responses to peripheral stimuli. *Journal of Neurophysiology*, *83*(4), 2443-2452.

Vassilev, A., Zlatkova, M., Manahilov, V., Krumov, A., & Schaumberger, M. (2000). Spatial summation of blue-on-yellow light increments and decrements in human vision. *Vision Research*, *40*(8), 989-1000.

Vazquez, P., Cano, M., & Acuna, C. (2000). Discrimination of line orientation in humans and monkeys. *Journal of Neurophysiology*, *83*(5), 2639-2648.

Vergheze, P., & McKee, S. P. (2000). Early visual processing explains search accuracy. *Journal of Cognitive Neuroscience*(SS), D57.

vonMuhlenen, A., & Muller, H. J. (2000). Perceptual integration of motion and form information: Evidence of parallel-continuous processing. *Perception & Psychophysics*, *62*(3), 517-531.

vonNoorden, G. K. (2000). Normal visual development after unilateral complete ptosis at birth. *Journal of Aapos*, *4*(2), 127.

Werner, A., Sharpe, L. T., & Zrenner, E. (2000). Asymmetries in the time-course of chromatic adaptation and the significance of contrast. *Vision Research*, *40*(9), 1101-1113.

Wilkinson, F., & Crotofino, J. (2000). Orientation discrimination

thresholds in migraine: a measure of visual cortical inhibition. *Cephalalgia*, 20(1), 57-66.

Wilson, J. G., & Mitchell, R. J. (2000). Object detecting artificial retina. *Kybernetes*, 29(1-2), 31-52.

Winger, L. L., Robinson, J. A., & Jernigan, M. E. (2000). Low-complexity character extraction in low-contrast scene images. *International Journal of Pattern Recognition and Artificial Intelligence*, 14(2), 113-135.

Wohlschlager, A. (2000). Visual motion priming by invisible actions. *Vision Research*, 40(8), 925-930.

Wolffsohn, J. S., & Cochrane, A. L. (2000). The practical near acuity chart (PNAC) and prediction of visual ability at near. *Ophthalmic and Physiological Optics*, 20(2), 90-97.

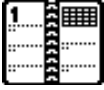
Woodhouse, J. M., Griffiths, C., & Gedling, A. (2000). The prevalence of ocular defects and the provision of eye care in adults with learning disabilities living in the community. *Ophthalmic and Physiological Optics*, 20(2), 79-89.

Yeh, M., Wickens, C. D., & Seagull, F. J. (1999). Target cuing in visual search: The effects of conformality and display location on the allocation of visual attention. *Human Factors*, 41(4), 524-542.

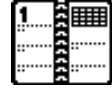
Zeffiro, T., Brown, C., Jones, K., Given, B., & Eden, G. (2000). Visual motion processing in reading-disabled children. *Journal of Cognitive Neuroscience*(SS), D91.

References supplied (as usual!) by:

Chris Dickinson
MJCCMD@fs1.op.umist.ac.uk



Meetings Calendar



2000

- August 27-31 ECVP Groningen, The Netherlands
<http://ecvp.med.rug.nl>
- September 15 AVA Natural Images 3, Bristol
Abstract deadline: 4th August 2000
contact: I_Moorhead@dera.gov.uk
- October 4-7 Joint European Research Meetings in
Ophthalmology and Vision
Palma de Mallorca
<http://www.ever.be>
- November 4-9 Society for Neuroscience
New Orleans, LA
<http://www.sfn.org>