

Joshua A. Solomon

Editing

Editorial Board, *Journal of Vision* (2018 –)

Guest Associate Editor, *Attention, Perception & Psychophysics* (2021)

Associate Editor of *Attention, Perception & Psychophysics* (2008 – 2015)

Guest Associate Editor, *Seeing and Perceiving* (2011)

Post-graduate and Post-doctoral examinations

Regan Gallagher (PhD *pending* University of Queensland, Australia)

Rémy Allard (HDR 2017 Sorbonne Universités, France)

Emmanouil Protonotarios (PhD 2016 University College London)

Peter Neri (HDR 2015 Ecole Normale Supérieure, France)

Mara Tribull (MPhil 2015 University College London)

Simon Barthelmé (PhD 2010 Université Paris Descartes, France)

Bradley Wolfgang (PhD 2006 University of Sydney, Australia)

Revital Shani-Hershkovich (PhD 2005 Weizmann Institute of Science, Israel)

RESEARCH

Financial Support

Leverhulme Trust #RPG-2021-020: The Function of Sensory Adaptation in Detecting Change, Nov 2021 – Oct 2023, £146,221 (PI: M. J. Morgan).

Leverhulme Trust #RPG-2016-124: A Bayesian Approach to the Control of Eye Movements in Human Subjects, Oct 2016 – Mar 2019, £122,047 (with Lisi, PI: M. J. Morgan).

BBSRC grant #BB/K01479X/1: New Methodologies to Explain and Improve the Expert Anticipatory Advantage in Sports Decision Making, Oct 2013 – Apr 2017, £477,294 (fEC; with Jalali; PI: K. Yarrow).

Wellcome Trust grant #093280: Mapping and Remapping of Visual Space, Mar 2011 – Mar 2014, £314,000 (with Grant & Melmoth; PI: M. J. Morgan).

Royal Society grant #IE111227: Visual Recognition's Advantage over Reproduction, Mar 2012 – May 2014, £9,200 (with Gorea; PI: J. A. S.).

EPSRC grant #EP/H033955: Efficiency of Visual Statistics, Feb. 2011 – Feb. 2014, £541,000 (fEC; with Morgan, Chubb & May; PI: J. A. S.).

EPSRC grant #EP/E064604: Image Statistics in the Visual System, Sep. 2007 – Aug. 2010, £222,000 (fEC; with Morgan, Chubb & Tomassini; PI: J. A. S.).

Cognitive Systems Foresight grant. BBSRC #GR/E002536/01: Contextual Influences on Orientation Perception, Oct. 2007 – Mar. 2011, £425,000 (fEC; with Zhaoping, Morgan, Schwartz, Mareschal & May; PI: P. Dayan).

Cognitive Systems Foresight grant. BBSRC #GR/E000444/01: Contextual Influences on Orientation Perception, Mar. 2007 – Mar. 2010, £364,000 (fEC; with Morgan, Dayan, Zhaoping, Schwartz, Mareschal & May; PI: J. A. S.).

City University Staff Research Prize 2006: £1,000.

EPSRC grant #GR/R85006/01: Mechanisms of Selective Attention and Signal Detection in Human Vision, Sep. 2002 – Aug. 2004, £77,000 (PI: M. J. Morgan).

Publications, part 1 of 9: Edited Book

E1. Solomon, J. A. (Ed.) (2011) *Fechner's legacy in Psychology: 150 years of Elementary Psychophysics*. Leiden: Brill Academic Publisher.

Publications, part 2 of 9: On-line Resource

- O1. Solomon, J. A. (2013) Visual Psychophysics. In D. S. Dunn (Ed.) *Oxford Bibliographies in Psychology*. New York: Oxford University Press.
doi:10.1093/OBO/9780199828340-0128

Publications, part 3 of 9: Journal Articles

- J79. Whitney, D., Solomon, J. A., & Hochstein, S. (2021) Introduction to the special issue on ensemble perception. *Attention, Perception & Psychophysics*, *83*, 899–903, doi:10.3758/s13414-021-02275-4
- J78. Solomon, J. A. (2021) Five dichotomies in the psychophysics of ensemble perception. *Attention, Perception & Psychophysics*, *83*, 904–910, doi:10.3758/s13414-020-02027-w
- J77. Morgan, M. J. & Solomon, J. A. (2021) Adaptation facilitates change detection even when attention is directed elsewhere. *Attention, Perception & Psychophysics*, *83*, 97–102. doi:10.3758/s13414-020-02092-1
- J76. Solomon, J. A. & Morgan, M. J. (2020) Models for discriminating image blur from loss of contrast. *Journal of Vision*, *20*(6):19, 1–14, doi:10.1167/20.6.19.
- J75. Morgan, M. J. & Solomon, J. A. (2020) A visual search asymmetry for novelty in the visual field based on sensory adaptation. *Attention, Perception & Psychophysics*, *82*, 938–943, doi:10.3758/s13414-019-01943-w
- J74. Ismail, A. M. H., Solomon, J. A., Hansard, M., & Mareschal, I. (2019) A perceptual bias for man-made objects in humans. *Proceedings of the Royal Society of London. Series B, Biological Sciences*, *286*: 20191492, doi:10.1098/rspb.2019.1492
- J73. Jalali, S., Martin, S. E., Ghose, T., Buscombe, R. M., Solomon, J. A., & Yarrow, K. (2019) Information accrual from the period preceding racket-ball contact for tennis ground strokes: Inferences from stochastic masking. *Frontiers in Psychology*, *10*:1969, 1–11, doi:10.3389/fpsyg.2019.01969
- J72. Lisi, M., Solomon, J. A., & Morgan, M. J. (2019) Gain control of saccadic eye movements is probabilistic. *Proceedings of the National Academy of Sciences*, *116*, 16137–16142. doi:10.1073/pnas.1901963116
- J71. Morgan, M. J. & Solomon, J. A. (2019) Attention and the motion aftereffect. *Quarterly Journal of Experimental Psychology*, *72*, 2848–2964, doi:10.1177/1747021819864552
- J70. Tyler, C. W. & Solomon, J. A. (2019) Color perception in natural images. *Current Opinion in Behavioral Sciences*, *30*, 8–14.
- J69. Jalali, S., Martin, S. E., Murphy, C. P., Solomon, J. A., & Yarrow, K. (2018) Classification videos reveal the visual information driving complex real-world speeded decisions. *Frontiers in Psychology*, *9*:2229, 1–14, doi:10.3389/fpsyg.2018.02229
- J68. Solomon, J. A. & Tyler, C. W. (2018) A Brücke-Bartley effect for contrast. *Royal Society Open Science*, *5*: 180171.
- J67. Solomon, J. A. & Morgan, M. J. (2018) Pre-cues' elevation of sensitivity is not only pre-attentive, but largely monocular. *Attention, Perception, & Psychophysics*, *80*, 1705–1717.
- J66. Solomon, J. A. & Morgan, M. J. (2018) Calculation efficiencies for mean numerosity. *Psychological Science*, *29*, 1824–1831.
- J65. Tyler, C. W. & Solomon, J. A. (2018) Does colour filling-in account for colour perception in natural images? *i-Perception*, *9*(3), 1–10.

- J64. Li, V., Herce Castañón, S., Solomon, J. A., Vandormael, H., & Summerfield, C. (2017) Robust averaging protects decisions from noise in neural computations. *PLoS Computational Biology*, *13*(8): e1005723.
- J63. Solomon, J. A. & Morgan, M. J. (2017) Orientation-defined boundaries are detected with low efficiency. *Vision Research*, *138*, 66–70.
- J62. Solomon, J. A. & Tyler, C. W. (2017) The improvement of contrast sensitivity with practice is not compatible with a sensory threshold account. *Journal of the Optical Society of America A*, *34*, 870–880. doi:10.1364/JOSAA.34.000870
- J61. Ismail, A. M. H., Solomon, J. A., Hansard, M., & Mareschal, I. (2016) A tilt after-effect for images of buildings: Evidence of selectivity for the orientation of everyday scenes. *Royal Society Open Science*, *3*: 16–551. doi:10.1098/rsos.160551
- J60. Morgan, M. J., Schreiber, K., & Solomon, J. A. (2016) Low-level mediation of directionally specific motion after-effects: motion perception is not necessary. *Attention, Perception, & Psychophysics*, *78*, 2621–2632. doi:10.3758/s13414-016-1160-1
- J59. Yarrow, K., Martin, S. E., Di Costa, S., Solomon, J. A., & Arnold, D. H. (2016) A roving dual-presentation simultaneity judgment task to estimate the point of subjective simultaneity. *Frontiers in Psychology*, *7*:416, 1–19, doi:10.3389/fpsyg.2016.00416.
- J58. Solomon, J. A., May, K. A., & Tyler, C. W. (2016) Inefficiency of orientation averaging: evidence for hybrid serial/parallel temporal integration. *Journal of Vision*, *16*(1):13, 1–7, doi:10.1167/16.1.13.
- J57. Morgan, M., Grant, S., Melmoth, D., & Solomon, J. A. (2015) Tilted frames of reference have similar effects on the perception of gravitational vertical and the planning of vertical saccadic eye movements. *Experimental Brain Research*, *233*, 2115–2125.
- J56. Melmoth, D., Grant, S., Solomon, J. A., & Morgan, M. J. (2015) Rapid eye movements to a virtual target are biased by illusory context in the Poggendorf figure. *Experimental Brain Research*, *233*, 1993–2000.
- J55. May, K. A. & Solomon, J. A. (2015) Connecting psychophysical performance to neuronal response properties II: Contrast decoding and detection. *Journal of Vision*, *15*(6):9, 1–21. doi:10.1167/15.6.9.
- J54. May, K. A. & Solomon, J. A. (2015) Connecting psychophysical performance to neuronal response properties I: Discrimination of suprathreshold stimuli. *Journal of Vision*, *15*(6):8, 1–26. doi:10.1167/15.6.8.
- J53. Tomassini, A., Solomon, J. A., & Morgan, M. J. (2014) Which way is down? Positional distortion in the tilt illusion. *PLoS ONE*, *9*, e110729. doi:10.1371/journal.pone.0110729.
- J52. Tomassini, A. & Solomon, J. A. (2014) Awareness is the key to attraction: dissociating the tilt illusions via conscious perception. *Journal of Vision*, *14*(12):15, 1–9. doi:10.1167/14.12.15.
- J51. Gorea, A., Belkoura, S., & Solomon, J. A. (2014) Summary statistics for size over space and time. *Journal of Vision*, *14*(9):22, 1–14. doi: 10.1167/14.9.22.
- J50. Morgan, M. J., Melmoth, D., & Solomon, J. A. (2013) Linking hypotheses underlying Class A and Class B methods. *Visual Neuroscience*, *30*, 197–206.
- J49. May, K. A. & Solomon, J. A. (2013) Four theorems on the psychometric function. *PLoS ONE*, *8*, e74815. doi:10.1371/journal.pone.0074815.
- J48. Ouhnana, M., Bell, J., Solomon, J. A. & Kingdom, F. A. A. (2013) After-effect of perceived regularity. *Journal of Vision*, *13*(8):18, 1–13. doi: 10.1167/13.8.18.

- J47. Solomon, J. A., Cavanagh, P. & Gorea, A. (2012) Recognition criteria vary with fluctuating uncertainty. *Journal of Vision*, 12(8):2, 1–13. doi: 10.1167/12.8.2.
- J46. Morgan, M. J., Mareschal, I., Chubb, C. & Solomon, J. A. (2012) Perceived pattern regularity computed as a summary statistic: Implications for camouflage. *Proceedings of the Royal Society of London. Series B, Biological Sciences*, 279, 2754–2760.
- J45. Morgan, M., Dillenburger, B., Raphael, S. & Solomon, J. A. (2012) Observers can voluntarily shift their psychometric functions without losing sensitivity. *Attention, Perception & Psychophysics*, 74, 185–193.
- J44. Solomon, J. A., Morgan, M. & Chubb, C. (2011) Efficiencies for the statistics of size discrimination. *Journal of Vision*, 11(12):13, 1–11. doi: 10.1167/11.12.13.
- J43. Morgan, M. J., Chubb, C. & Solomon, J. A. (2011) Evidence for a subtractive component in motion adaptation. *Vision Research*, 51, 2312–2316.
- J42. Solomon, J. A. (2010) Visual discrimination of orientation statistics in crowded and uncrowded arrays. *Journal of Vision*, 10(14):19, 1–16. doi: 10.1167/10.14.19.
- J41. Constable, P. A., Solomon, J. A., Gaigg, S. B. & Bowler, D. M. (2010) Crowding and visual search in high functioning adults with autism spectrum disorder. *Clinical Optometry*, 2, 93–103.
- J40. Dayan, P. & Solomon, J. A. (2010) Selective Bayes: Attentional load and crowding. *Vision Research*, 50, 2248–2260.
- J39. Mareschal, I., Morgan, M. J. & Solomon, J. A. (2010) Cortical distance determines whether flankers cause crowding or the tilt illusion. *Journal of Vision*, 10(8):13, 1–14. doi: 10.1167/10.8.13.
- J38. Mareschal, I., Morgan, M. J. & Solomon, J. A. (2010) Attentional modulation of crowding. *Vision Research*, 50, 805–809.
- J37. Tomassini, A., Morgan, M. J. & Solomon, J. A. (2010) Orientation uncertainty reduces perceived obliquity. *Vision Research*, 50, 541–547.
- J36. Nam, J.-H., Chubb, C., Solomon, J. A., Morgan, M. J. & Wright, C. E. (2009) Coherent plaids are preattentively more than the sum of their parts. *Attention, Perception & Psychophysics*, 71, 1469–1477.
- J35. Solomon, J. A. & Morgan, M. J. (2009) Strong tilt illusions always reduce orientation acuity. *Vision Research*, 49, 819–824.
- J34. Solomon, J. A. (2009) The history of dipper functions. *Attention, Perception & Psychophysics*, 71, 435–443.
- J33. Mareschal, I., Solomon, J. A. & Morgan, M. J. (2008) Contextual effects on decision templates for parafoveal orientation identification. *Vision Research*, 48, 2689–2695.
- J32. Morgan, M., Chubb, C. & Solomon, J. A. (2008) A ‘dipper’ function for texture discrimination based on orientation variance. *Journal of Vision*, 8(11):9, 1–8. doi: 10.1167/8.11.9.
- J31. Morgan, M., Giora, E. & Solomon, J. A. (2008) A single “stopwatch” for duration estimation; a single “ruler” for size. *Journal of Vision*, 8(2):14, 1–8. doi:10.1167/8.2.14.
- J30. Gheri, C., Morgan, M. J. & Solomon, J. A. (2007) The relationship between search efficiency and crowding. *Perception*, 36, 1779–1787.
- J29. Solomon, J. A. (2007) Contrast discrimination: Second responses reveal the relationship between the mean and variance of visual signals. *Vision Research*, 47, 3247–3258.
- J28. Morgan, M. J., McEwan, W. & Solomon, J. A. (2007) The lingering effects of an artificial blind spot. *PLoS ONE*, 2, e256. doi:10.1371/journal.pone.0000256

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- J27. Solomon, J. A. (2007) Intrinsic uncertainty explains second responses. *Spatial Vision*, 20, 45–60.
- J26. Solomon, J. A. & Morgan, M. J. (2006) Stochastic re-calibration: contextual effects on perceived tilt. *Proceedings of the Royal Society of London. Series B, Biological Sciences*, 273, 2681–2686.
- J25. Morgan, M., Chubb, C. & Solomon, J. A. (2006) Predicting the motion after-effect from sensitivity loss. *Vision Research*, 46, 2412–2420.
- J24. Morgan, M. J. & Solomon, J. A. (2006) Attentional capacity limit causes spatial neglect in normal observers. *Vision Research*, 46, 1868–1875.
- J23. Solomon, J. A., John, A. & Morgan, M. J. (2006) Monocular texture segmentation and proto-rivalry. *Vision Research*, 46, 1488–1492.
- J22. Felisberti, F. M., Solomon, J. A. & Morgan, M. J. (2005) The role of target salience in crowding. *Perception*, 34, 823–833.
- J21. Solomon, J. A., Chubb, C., John, A. & Morgan, M. (2005) Stimulus contrast and the Reichardt detector. *Vision Research*, 45, 2109–2117.
- J20. Solomon, J. A., Felisberti, F. M. & Morgan, M. J. (2004) Crowding and the tilt illusion: toward a unified account. *Journal of Vision*, 4, 500–508.
- J19. Solomon, J. A. (2004) The effect of spatial cues on visual sensitivity. *Vision Research*, 44, 1209–1216.
- J18. Solomon, J. A. (2002) Noise reveals visual mechanisms of detection and discrimination. *Journal of Vision*, 2, 105–120.
- J17. Parkes, L., Lund, J., Angelucci, A., Solomon, J. A. & Morgan, M. J. (2001) Compulsory averaging of crowded orientation signals in human vision. *Nature Neuroscience*, 4, 739–744.
- J16. Solomon, J. A. & Morgan, M. J. (2001) Odd-men-out are poorly localized in brief displays. *Journal of Vision*, 1, 9–17.
- J15. Solomon, J. A. (2000) Channel selection with non-white-noise masks. *Journal of the Optical Society of America A*, 17, 986–993.
- J14. Solomon, J. A. & Morgan, M. J. (2000) Facilitation from collinear flanks is cancelled by non-collinear flanks. *Vision Research*, 40, 279–286.
- J13. Solomon, J. A. & Morgan, M. J. (1999) Dichoptically cancelled motion. *Vision Research*, 39, 2293–2297.
- J12. Solomon, J. A., Watson, A. B. & Morgan, M. J. (1999) Transducer model produces facilitation from opposite-sign flanks. *Vision Research*, 39, 987–992.
- J11. Watson, A. B. & Solomon, J. A. (1997) A model of visual contrast gain control and pattern masking. *Journal of the Optical Society of America A*, 14, 2379–2391.
- J10. Solomon, J. A., Lavie, N. & Morgan, M. J. (1997) The contrast discrimination function: spatial cuing effects. *Journal of the Optical Society of America A*, 14, 2443–2448.
- J9. Watson, A. B., Yang, G. Y., Solomon, J. A. & Villasenor, J. (1997) Visibility of Wavelet quantization noise. *IEEE Transactions on Image Processing*, 6, 1164–1175.
- J8. Watson, A. B. & Solomon, J. A. (1997) Psychophysica: Mathematica notebooks for psychophysical experiments. *Spatial Vision*, 10, 447–466.
- J7. Morgan, M. J., Mason, A. J. S. & Solomon, J. A. (1997) "Blindsight" in normal subjects? *Nature*, 385, 401–402.
- J6. Solomon, J. A. & Watson, A. B. (1996) Cinematica: A system for calibrated, Macintosh-driven displays from within Mathematica. *Behavior Research Methods, Instruments, & Computers*, 28, 607–610.

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- J5. Solomon, J. A. & Sperling, G. (1995) 1st- and 2nd-order motion and texture resolution in central and peripheral vision. *Vision Research*, 35, 59–64.
- J4. Solomon, J. A. & Sperling, G. (1994) Full-wave and half-wave rectification in second-order motion perception. *Vision Research*, 34, 2239–2257.
- J3. Solomon, J. A. & Pelli, D. G. (1994) The visual filter mediating letter identification. *Nature*, 369, 395–397.
- J2. Solomon, J. A., Sperling, G. & Chubb, C. (1993) The lateral inhibition of perceived contrast is indifferent to on-center/off-center segregation, but specific to orientation. *Vision Research*, 33, 2671–2683.
- J1. Chubb, C., Sperling, G. & Solomon, J. A. (1989) Texture interactions determine perceived contrast. *Proceedings of the National Academy of Sciences*, 86, 9631–9635.

Publications, part 4 of 9: Book Chapters

- B7. Chubb, C., Sperling, G. & Solomon, J. A. (2017) The contrast contrast illusion. In A.G. Shapiro & D. Todorovic (Eds.) *Oxford Compendium of Visual Illusions*. Oxford University Press, 337–343.
- B6. Pelli, D. G. & Solomon, J. A. (2017) Visual psychophysical methods. In P. Artal (Ed.) *Handbook of Visual Optics I*. Philadelphia: Taylor and Francis, 181–186.
- B5. Solomon, J. A. & Mareschal, I. (2013) The incompatibility of feature contrast and feature acuity. In C. Chubb, B. Doshier, Z.-L. Lu & R. Shiffrin (Eds.) *Human Information Processing: Vision, Memory, Attention*. Washington DC: American Psychological Association, 29–38.
- B4. Solomon, J. A. (2011) Commemorating *Elemente der Psychophysik*. In J. A. Solomon (Ed.) *Fechner's legacy in Psychology: 150 years of Elementary Psychophysics*. Leiden: Brill Academic Publisher, 1–5.
- B3. Morgan, M., Chubb, C. & Solomon, J. (2005) Probability multiplication as a new principle in psychophysics. In M. R. Jenkin & L. R. Harris (Eds.) *Seeing Spatial Form*. Oxford University Press, 57–66.
- B2. Morgan, M. J. & Solomon, J. A. (2005) Capacity limits for spatial discrimination. In L. Itti, G. Rees & J. Tsotsos (Eds.) *Neurobiology of Attention*. Elsevier, 8–10.
- B1. Sperling, G., Solomon, J. A., Lu, Z-L. & Chubb, C. (1994) Visual preprocessing: first and second order processes in the perception of motion and texture. In J. M. Zaruda, R. J. Marks II & C. J. Robinson (Eds.) *Computational intelligence: imitating life*. New York: IEEE Press, 223–236.

Publications, part 5 of 9: Full-Length Conference Proceedings

- P7. Watson, A. B., Yang, G. Y., Solomon, J. A. & Villasenor, J. (1996) Visual Thresholds for Wavelet quantization noise. In B. Rogowitz & J. Allebach (Eds.), *Human Vision and Electronic Imaging*, Bellingham, WA: SPIE. [Please cite J9.]
- P6. Watson, A. B., Solomon, J. A., Ahumada, A. J. Jr. & Gale, A. (1994) Visibility of DCT quantization noise: effects of display resolution. Society for Information Display International Symposium Digest of Technical Papers, 25, 697–700.
- P5. Solomon, J. A., Watson, A. B. & Ahumada, A. J. Jr. (1994) Visibility of DCT quantization noise: contrast masking. Society for Information Display International Symposium Digest of Technical Papers, 25, 701–703.
- P4. Solomon, J. A., Watson, A. B. & Ahumada, A. J. Jr. (1994) The visibility of DCT basis functions: effects of contrast masking. Data Compression Conference, Snowbird, Utah, IEEE Computer Society Press, 361–370. [Please cite P6.]

- P3. Watson, A. B., Solomon, J. A. & Ahumada, A. J. Jr. (1994) The visibility of DCT basis functions: effects of display resolution. Data Compression Conference, Snowbird, Utah, IEEE Computer Society Press, 371–379. [Please cite P7.]
- P2. Watson, A. B., Gale, A., Ahumada, A. J. Jr. & Solomon, J. (1994) DCT basis function visibility: effects of viewing distance and contrast masking. In B. E. Rogowitz (Ed.), *Human Vision, Visual Processing and Digital Display IV*, Bellingham, WA: SPIE. [Please cite P6 and/or P7.]
- P1. Sperling, G., Chubb, C., Solomon, J. A. & Lu, Z-L. (1994) Fullwave and halfwave processes in second order motion and texture. In *Higher-order processing in the visual system*. Chichester, UK: Wiley (Ciba Foundation Symposium, 184), 287–308. [Please cite J1, J2 and/or J4.]

Publications, part 6 of 9: Conference Abstracts (URLs for unfinished papers only.)

- A101. Solomon, J. A. & Morgan, M. J. (2020) Models for discriminating blur from loss of contrast. *Journal of Vision*, 20, 521. [Please cite J76.]
- A100. Solomon, J. A. (2019) Five dichotomies in the psychophysics of ensemble perception. *Perception*, 48(25), 14. [Please cite J78.]
- A99. Solomon, J. A. (2019) Illusory radial displacement in two-flash displays. *Perception*, 48(3), 278.
- A98. Solomon, J. A. & Morgan, M. J. (2019) Pre-cues' elevation of sensitivity is not only pre-attentive, but largely monocular. *Perception*, 48(S1), 10. [Please cite J67.]
- A97. Lisi, M., Solomon, J. A., & Morgan, M. (2018) Signatures of a probabilistic strategy in the control of saccadic eye movements. *Journal of Vision*, 18, 373. [Please cite J72.]
- A96. Lisi, M., Solomon, J., & Morgan, M. (2018) Signatures of a probabilistic strategy in the control of saccadic eye movements. *Perception*, 47(5), 568. [Please cite J72.]
- A95. Ismail, A. M. H., Solomon, J. A., Hansard, M., & Mareschal, I. (2017) A bias for anisotropy in image classification. *Perception*, 46 Supplement, 194. [Please cite J74.]
- A94. Solomon, J. A. (2017) The psychophysical function for contrast. *i-Perception*, 8(2) Supplement, 8. [Please cite J68.]
- A93. Morgan, M. J., & Solomon, J. A. (2017) Attraction and Repulsion Between Local and Global Motion. *Journal of Vision*, 17(10):216.
- A92. Solomon, J. A., & Morgan, M. J. (2017) Visual signals increase faster than the contrasts that elicit them. *Journal of Vision*, 17(10):770. [Please cite J68.]
- A91. Förster, J., Solomon, J., & Morgan, M. (2017) Saccades to pseudo-plaids are more accurate than saccades to drifting Gabors. *Perception*, 46, 1225–1226. doi: 10.1177/0301006617710756
- A90. Ismail, A. M. H., Solomon, J. A., Hansard, M., & Mareschal, I. (2017) Spatiotemporal dynamics of orientation processing during scene recognition. *Perception*, 46, 1220–1221. doi: 10.1177/0301006617710756 [Please cite J74.]
- A89. Morgan, M. J., Krellner, M. & Solomon, J. A. (2016) Integration of number across separate dot clusters. Program No. 384.09. 2016 Neuroscience Meeting Planner. San Diego, CA: Society for Neuroscience. [Please cite J66.]
- A88. Jalali, S., Martin, S., Solomon, J. A., & Yarrow, K. (2016) Classification videos reveal the information used to respond to an opponent's tennis stroke. *Perception*, 45 Supplement, 179–180. [Please cite J69.]
- A87. Solomon, J. A. & Tyler, C. W. (2016) Practice lowers contrast thresholds for detection, not sensory thresholds. *Perception*, 45 Supplement, 361. [Please cite J62.]

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- A86. Morgan, M. J. & Solomon, J. (2016) Low-level mediation of directionally specific motion after-effects: motion perception is not necessary. *Perception, 45 Supplement*, 187. [Please cite J60.]
- A85. Ismail, A. M. H., Solomon, J. A., Hansard, M., & Mareschal, I. (2016) A generalized tilt after-effect. *Journal of Vision, 16(12):877*. [Please cite J61.]
- A84. Ismail, A. M. H., Hansard, M., Solomon, J. A., & Mareschal, I. (2016) Adaptation to tilted scenes. *Perception, 45*, 699. [Please cite J61.]
- A83. Jalali, S., Yarrow, K., & Solomon, J. A. (2015) Assessing anticipatory prediction skills in athletes using techniques developed for vision science. *Journal of Sports Sciences, 33 (S1)*, s115. [Please cite J69.]
- A82. Solomon, J. A. & Tyler, C. W. (2015) Weight allocation in summary statistics. *Perception, 44 Supplement*, 248–249.
- A81. Langley, K., Lefebvre, V., & Solomon, J. (2015) Underlying mechanisms of repulsion, assimilation and enhancement in direct tilt after-effects: A cascaded Bayesian view, *Perception, 44 (10)*, 1245.
- A80. Solomon, J. A. & Morgan, M.J. (2015) Detection of orientation-defined boundaries is just as inefficient as estimation of mean orientation. *Journal of Vision, 15(12): 773*. [Please cite J63.]
- A79. Jalali, S., Yarrow, K., & Solomon, J. A. (2015) Predicting the outcome of an opponent's tennis stroke: Insights from a classification-sequence analysis. *Journal of Vision, 15(12): 745*. [Please cite J69.]
- A78. Solomon, J. A., May, K. A., & Tyler, C. W. (2014) Poor voluntary averaging of spatial orientations. *Perception, 43 Supplement, 170*. [Please cite J58.]
- A77. Solomon, J. A. (2014) Psychophysical correlates of lateral inhibition. *Perception, 43 Supplement, 58*.
- A76. Solomon, J. A., Kraft, J., & Chubb, C. (2014) Perceptual requirements and consequences of lateral inhibition. *Journal of Vision, 14(10): 1425*.
- A75. May, K. A. & Solomon, J. A. (2014) Formal relationships between neuronal response properties and psychophysical performance. *i-Perception, 5*. [Please cite J54 and/or J55.]
- A74. Solomon, J. A., Bex, P., & Dakin, S. (2013) Sampling efficiency and internal noise for summary statistics. *Perception, 42 Supplement, 158*.
<http://youtu.be/iQqENuXQRbg>
- A73. May, K. A. & Solomon, J. (2013) Reconciling multiplicative physiological noise and additive psychophysical noise. *Perception, 42 Supplement, 158*. [Please cite J49.]
- A72. Gorea, A., Belkoura, S. & Solomon, J. (2013) Computing an average over space and time. Asia Pacific Conference on Vision, Suzhou, China. [Please cite J51.]
- A71. Solomon, J. A. (2013) Pre-cues alleviate supercrowding without attracting focal attention. *Journal of Vision, 13(9): 632*. <http://cdn.fl1000.com/posters/docs/253940512>
- A70. Dakin, S.C., Solomon, J. A. & Bex, P.J. (2013) Observers voluntarily average with zero and invisible external noise. *Perception, 41*, 1515.
- A69. May, K.A. & Solomon, J. A. (2013) Weibull β for contrast detection is the Nakagami-Rushton exponent. *Perception, 41*, 1523. [Please cite J55.]
- A68. Morgan, M., Dillenburger, B., Raphael, S. & Solomon, J. A. (2012) Observers can voluntarily shift their psychometric functions without losing sensitivity. *Journal of Vision, 12(9): 1391*. [Please cite J45.]
- A67. Gorea, A., Cavanagh, P. & Solomon, J. (2012) On successive memories. *Journal of Vision, 12(9): 859*. [Please cite J47.]

Joshua A. Solomon

- A66. Ouhnana, M., Bell, J., Solomon, J. A. & Kingdom, F. A. A. (2012) The regularity after-effect: first or second-order? *Journal of Vision*, 12(9): 1285. [Please cite J48.]
- A65. Gorea, A., Cavanagh, P. & Solomon, J. A. (2011) Sequential decisions on a memorized visual feature reveal implicit knowledge of decision errors. *Perception*, 40 Supplement, 83. [Please cite J47.]
- A64. Solomon, J., Morgan, M. J. & Chubb, C. (2011) Efficiencies for the statistics of size. *Journal of Vision*, 11(11): 1041. [Please cite J44.]
- A63. Ouhnana, M., Bell, J., Morgan, M. J., Solomon, J. A. & Kingdom, F. A. A. (2011) After-effect of perceived regularity. *Journal of Vision*, 11(11): 1084. [Please cite J48.]
- A62. Solomon, J. A. (2011) The Psychophysics of Size. Istituto Zaccagnini XV Congresso Annuale Interdisciplinare, Bologna, Italy. [Please cite B4 and/or J44.]
- A61. Tomassini, A. & Solomon, J.A. (2010) Visual awareness affects only the indirect tilt illusion, not its direct counterpart. *Perception*, 39 Supplement, 7. [Please cite J52.]
- A60. Morgan, M. J., Mareschal, I., Chubb, C. & Solomon, J.A. (2010) Sampling efficiencies for spatial regularity. *Journal of Vision*, 10(7): 1362. [Please cite J46.]
- A59. Solomon, J., Morgan, M. J. & Chubb, C. (2010) Estimating mean tilt, mean size, tilt variance and size variance. *Journal of Vision*, 10(7): 24. [Please cite J42.]
- A58. Mareschal, I. & Solomon, J. A. (2010) Perceived orientation: the tilt illusion dominates parafoveal vision, but the periphery is dominated by crowding. *Perception*, 39, 275. [Please cite J39.]
- A57. Solomon, J. A. & Chubb, C. (2010) Weber's Law for circle diameters; not areas. *Perception*, 39, 271. [Please cite J44.]
- A56. Tomassini, A., Morgan, M.J. & Solomon, J. A. (2009) Re-calibration of subjective reference frame in the tilt illusion. *Perception*, 38 Supplement, 186. [Please cite J53.]
- A55. Mareschal, I., Solomon, J. A. & Morgan, M. J. (2009) Endogenous attention can reduce the tilt illusion, but not crowding. *Journal of Vision*, 9, 126a. [Please cite J38.]
- A54. Constable, P. A., Solomon, J. A. & Bowler, D. M. (2009) Crowding effects in autism spectrum disorders. INSAR Annual Meeting, Chicago, Illinois. [Please cite J41.]
- A53. Solomon, J. A. (2009) A visual search asymmetry for bandlimited two-dimensionality. *Perception*, 38, 468.
- A52. Tomassini, A., Solomon, J. A. & Morgan, M. J. (2008) When noisy means cardinal: visual biases for cardinal orientations revealed by degrading stimulus identity. *Journal of Vision*, 8, 270a. [Please cite J37.]
- A51. Mareschal, I., Solomon, J. & Morgan, M. (2008) The opposite of crowding revealed using classification images. *Journal of Vision*, 8, 430a. [Please cite J33.]
- A50. Morgan, M., Chubb, C. & Solomon, J. A. (2008) The visual system removes sensory noise from the representation of a texture. *Journal of Vision*, 8, 692a. [Please cite J32.]
- A49. Solomon, J. A. & Morgan, M. J. (2008) Context-induced acuity loss for tilt: If it is not crowding, what is it? 2008 VSS Annual Meeting, Naples, Florida. [Please cite B5.]
- A48. Morgan, M. J. & Solomon, J. A. (2007) Testing a multi-resolution clock model for temporal duration discrimination. *Journal of Vision*, 7, 1011a, <http://journalofvision.org/7/9/1011/>.
- A47. Solomon, J. A. & Morgan, M. J. (2006) Contrast discrimination: Second responses unambiguously reveal the relationship between the mean and the variance of visual signals. *Perception*, 35 Supplement, 15. [Please cite J29.]
- A46. Chubb, C., Solomon, J. A. & Morgan, M. J. (2006) Evidence for plaid-grabbers. *Journal of Vision*, 6, 201a. [Please cite J36.]

- A45. Solomon, J. A. (2006) The relationship between physical tilt, apparent tilt and acuity. *Journal of Vision*, 6, 973a. [Please cite J35.]
- A44. Morgan, M. J., Giora, E. & Solomon, J. A. (2006) Parallel processing is much harder for temporal duration than for spatial length. *Journal of Vision*, 6, 1012a. [Please cite J32.]
- A43. Gheri, C., Baldassi, S. & Solomon, J. A. (2005) Why is apparent tilt so large? *Perception* 34 Supplement, <http://www.perceptionweb.com/ecvp05/0511.html> .
- A42. Solomon, J. & Morgan, M. (2005) Contextual effects on orientation identification and contrast discrimination in the fovea. *Journal of Vision*, 5, 180a. [Please cite J26.]
- A41. Morgan, M. & Solomon, J. (2005) Attentional capacity limit for visual search causes spatial neglect in normal observers. *Journal of Vision*, 5, 947a. [Please cite J24.]
- A40. Solomon, J. A. & Morgan, M. (2005) Lateral masks are more effective interocularly. *Spatial Vision*, 18, 486–487.
- A39. Morgan, M. & Solomon, J. A. (2005) 'Shinethrough' in simultaneous displays: a case of low spatial frequency masking? *Spatial Vision*, 18, 487.
- A38. Morgan, M., Chubb, C. & Solomon, J. A. (2004) Divisive and subtractive inhibition in the motion aftereffect. *Perception*, 33 Supplement, 37. [Please cite J25.]
- A37. Gheri, C., Solomon, J. A., Felisberti, F. M. & Morgan, M. J. (2004) 'Pop-out' does not prevent 'crowding.' *Perception*, 33 Supplement, 121. [Please cite J30.]
- A36. Solomon, J. A. & Morgan, M. (2004) Inverse cyclopean texture segregation survives contrast randomisation. *Perception*, 33 Supplement, 91, <http://perceptionweb.com/perception/ecvp04/0545.html> .
- A35. Solomon, J. A. & Morgan, M. J. (2004) The lingering effects of artificial scotomata. *Journal of Vision*, 4, 222a. [Please cite J28.]
- A34. Solomon, J. A., Felisberti, F. M. & Morgan, M. J. (2004) Crowding and the tilt illusion: toward a unified account. *Perception*, 33, 758. [Please cite J20.]
- A33. Felisberti, F. M., Solomon, J. A. & Morgan, M. J. (2003) Distortions of perceived orientation in crowded arrays. *Perception*, 32 Supplement, 156. [Please cite J20.]
- A32. John, A., Solomon, J. A. & Morgan, M. J. (2003) Monocular texture segregation and proto-rivalry. *Perception*, 32 Supplement, 78. [Please cite J23.]
- A31. Morgan, M. J., McEwan, W. & Solomon, J. A. (2003) Artificial scotomata: 'filling in' and/or masking? *Perception*, 32 Supplement, 47. [Please cite J28.]
- A30. Solomon, J. A. & Morgan, M. J. (2003) Flanked targets: easier to see, harder to identify. *Perception*, 32 Supplement, 47, <http://perceptionweb.com/ecvp03/0743.html>
- A29. Morgan, M. J. & Solomon, J. A. (2002) Obligatory averaging of orientation in crowded stimuli. *Spatial Vision*, 16, 97. [Please cite J17.]
- A28. Solomon, J. A. (2002) Covert attention does NOT affect contrast sensitivity. *Journal of Vision*, 2, 436a, <http://journalofvision.org/2/7/436/> .
- A27. Solomon, J. A. (2002) Maximum-Likelihood Analysis of Individual Responses to Stochastic Stimuli. *Perception*, 31 Supplement, 106. [Please cite J18.]
- A26. Solomon, J. A. & Morgan (2002) It takes time to bind: visual features are poorly localised in brief exposures. *Spatial Vision*, 15, 247. [Please cite J16.]
- A25. Solomon, J. A. (2001) False alarms reveal phase uncertainty. *Perception*, 30 Supplement, 38. [Please cite J18.]
- A24. Solomon, J. A. & Morgan, M. J. (2001) Odd-men-out are poorly localized in brief displays. *Investigative Ophthalmology & Visual Science*, 42, S927. [Please cite J16.]
- A23. Morgan, M. J., Solomon, J. A. & Chubb, C. (2001) First-order motion and vernier alignment use the same underlying computation. *Investigative Ophthalmology & Visual Science*, 42, S316. [Please cite B3 and/or J21.]

Joshua A. Solomon

- A22. Solomon, J. A. & Morgan, M. J. (2000) Does attention have access to monocular input? *Spatial Vision*, 14, 84–85.
- A21. Solomon, J. A. (2000) A picture of orientation discrimination. *Investigative Ophthalmology & Visual Science*, 41, S800. [Please cite J18.]
- A20. Morgan, M. J., Chubb, C. & Solomon, J. A. (2000) A hard-threshold model for 2 and 8AFC contrast detection and discrimination. *Investigative Ophthalmology & Visual Science*, 41, S801.
- A19. Solomon, J. A. & Morgan, M. J. (1999) A picture of orientation discrimination. *Supplement to Optics & Photonics News*, 10, 68. [Please cite A21.]
- A18. Solomon, J. A. & Morgan, M. J. (1999) Reverse correlation reveals psychophysical receptive fields. *Investigative Ophthalmology & Visual Science*, 40, S572. [Please cite J18.]
- A17. Watson, A. B. & Solomon, J. A. (1999) Model Fst data: fit of the Watson-Solomon model. *Investigative Ophthalmology & Visual Science*, 40, S572.
- A16. Solomon, J. A. & Morgan, M. J. (1999) Does attention have access to monocular input? 3rd Annual Vision Research Conference, Fort Lauderdale, Florida, Elsevier Science, 142. [Please cite A22.]
- A15. Solomon, J. A. & Morgan, M. J. (1998) Dichoptically cancelled pattern-motion is visible. *Perception*, 27 Supplement, 4. [Please cite J13.]
- A14. Morgan, M. J. & Solomon, J. A. (1998) Contrast facilitation by collinear flanks is abolished by non-collinear flanks. *Perception*, 27 Supplement, 54. [Please cite J14.]
- A13. Walton, E. J., Solomon, J. A., Lund, J. & Morgan, M. J. (1998) Direction specific contrast gain control. *Perception*, 27 Supplement, 54, <http://perceptionweb.com/ecvp98/j486a.html>.
- A12. Solomon, J. A. & Morgan, M. J. (1998) A multiple-channels model for nonwhite noise masking. *Investigative Ophthalmology & Visual Science*, 39, S406. [Please cite J15.]
- A11. Solomon, J. A., Morgan, M. J. & Watson, A. B. (1997) Evaluating the need for lateral excitation. *Supplement to Optics & Photonics News*, 8, 104. [Please cite J12.]
- A10. Solomon, J. A., Lavie, N. & Morgan, M. J. (1997) The contrast discrimination function: spatial cuing effects. *Investigative Ophthalmology & Visual Science*, 38, S632. [Please cite J10.]
- A9. Solomon, J. A. & Morgan, M. J. (1996) Low-contrast translating edges appear to lag behind high-contrast ones. *Investigative Ophthalmology & Visual Science*, 37, S749.
- A8. Solomon, J. A. & Watson, A. B. (1995) Spatial and spatial-frequency spreads of masking: measurements and a contrast gain control model. *Perception*, 24 Supplement, 37.
- A7. Watson, A. B. & Solomon, J. A. (1995) Contrast gain control model fits masking data. *Investigative Ophthalmology & Visual Science*, 36, S438. [Please cite J11.]
- A6. Solomon, J. A. & Pelli, D. G. (1993) Spatial frequency channels process text. *Perception*, 22 Supplement, 47. [Please cite J3.]
- A5. Solomon, J. A. & Sperling, G. (1993) Fullwave and halfwave rectification in motion perception. *Investigative Ophthalmology & Visual Science*, 34, 976. [Please cite J4.]
- A4. Burns, C. W., Farrell, B., Solomon, J. A. & Pelli, D. G. (1993) Bayesian Perception. *Investigative Ophthalmology & Visual Science*, 34, 1417.
- A3. Solomon, J. A. & Sperling, G. (1991) Can we see 2nd-order motion and texture in the periphery? *Investigative Ophthalmology & Visual Science*, 32, 714. [Please cite J5.]

Joshua A. Solomon

- A2. Solomon, J. A., Chubb, C. & Sperling, G. (1990) The lateral inhibition of perceived textural contrast is orientation specific. *Investigative Ophthalmology & Visual Science*, 31/4, 561. [Please cite J2.]
- A1. Chubb, C., Sperling, G. & Solomon, J. A. (1989) Texture interactions determine apparent lightness. *Investigative Ophthalmology & Visual Science*, 30/8, 1683. [Please cite J1.]

Publications, part 7 of 9: AP&P News from the Field

- N41. (2014) Maintaining an appearance of regularity. 76/8, 2173.
- N40. (2014) Dividing attention, easy; remembering how, hard. 76/7, 1872.
- N39. (2014) Why of course you can! 76/6, 1506.
- N38. (2014) Weighting for the end. 76/5, 1253.
- N37. (2014) Welcome to the psychomatrix. 76/4, 903.
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- N35. (2014) Steppin' out. 76/2, 265–266.
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- N31. (2013) Espyin' eyes. 75/5, 784.
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- N27. (2012) No sensations. 74/7, 1384–1385.
- N26. (2012) The power law is a assumption. 74/5, 779–780.
- N25. (2012) Sources of variance. 74/4, 632–633.
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- N23. (2011) Hex upon hex. 73/7, 1991.
- N22. (2011) Size matters. 73/6, 1635–1636.
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- N17. (2011) Things seen *are* temporal. 73/1, 2–3.
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- N15. (2010) Spatial cuing effects precede binocular combination. 72/7, 1722.
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- N6. (2009) Nearer my god to see. 71/6, 1204–1205.
- N5. (2009) Remember, this is not a competition . . . 71/5, 986.
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- N3. (2009) Statistical furor in neuroscience. 71/3, 433.
- N2. (2009) Biases for direction and tilt. 71/2, 215.
- N1. (2009) Combining information across spatial frequency channels. 71/1, 4.

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Publications, part 8 of 9: Children's Book

- C1. (2014) *Scientriffinic optical illusions*. Author: J. Kirkwood, Consultant: J. Solomon, Illustrator: S. Neilsen. Silver Dolphin Books, San Diego, CA.

Publications, part 9 of 9: Letter to the Editor

- L1. Solomon, J. A. (2015) Observers sometimes completely disregarded the instructions in the experiment of Manning et al. (2015), *The Journal of Neuroscience*. doi:10.1523/JNEUROSCI.4645-14.2015