# Martin S Banks

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/9533642/publications.pdf

Version: 2024-02-01

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|---|---|---|---|
| 89 papers | 12,952 citations | 36303 51 h-index | 51608 86 g-index |
| 90 all docs | 90 docs citations | 90 times ranked | 6442 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Humans integrate visual and haptic information in a statistically optimal fashion. Nature, 2002, 415, 429-433. | 27.8 | 3,906 |
| 2 | Vergenceâ€“accommodation conflicts hinder visual performance and cause visual fatigue. Journal of Vision, 2008, 8, 33. | 0.3 | 1,201 |
| 3 | The zone of comfort: Predicting visual discomfort with stereo displays. Journal of Vision, 2011, 11, 11-11. | 0.3 | 472 |
| 4 | Infant pattern vision: A new approach based on the contrast sensitivity function. Journal of Experimental Child Psychology, 1981, 31, 1-45. | 1.4 | 349 |
| 5 | The perception of heading during eye movements. Nature, 1992, 360, 583-585. | 27.8 | 315 |
| 6 | A stereo display prototype with multiple focal distances. ACM Transactions on Graphics, 2004, 23, 804-813. | 7.2 | 257 |
| 7 | Focus cues affect perceived depth. Journal of Vision, 2005, 5, 7. | 0.3 | 250 |
| 8 | Estimating heading during eye movements. Vision Research, 1994, 34, 3197-3214. | 1.4 | 241 |
| 9 | High-speed switchable lens enables the development of a volumetric stereoscopic display. Optics Express, 2009, 17, 15716. | 3.4 | 233 |
| 10 | A Bayesian model of the disambiguation of gravitoinertial force by visual cues. Experimental Brain Research, 2007, 179, 263-290. | 1.5 | 214 |
| 11 | Touch can change visual slant perception. Nature Neuroscience, 2000, 3, 69-73. | 14.8 | 211 |
| 12 | Depth of focus, eye size and visual acuity. Vision Research, 1980, 20, 827-835. | 1.4 | 203 |
| 13 | Auditory dominance over vision in the perception of interval duration. Experimental Brain Research, 2009, 198, 49-57. | 1.5 | 202 |
| 14 | Horizontal and vertical disparity, eye position, and stereoscopic slant perception. Vision Research, 1999, 39, 1143-1170. | 1.4 | 200 |
| 15 | The physical limits of grating visibility. Vision Research, 1987, 27, 1915-1924. | 1.4 | 188 |
| 16 | Perceiving heading with different retinal regions and types of optic flow. Perception & Psychophysics, 1993, 53, 325-337. | 2.3 | 171 |
| 17 | Optimal Compensation for Changes in Task-Relevant Movement Variability. Journal of Neuroscience, 2005, 25, 7169-7178. | 3.6 | 156 |
| 18 | Why Is Spatial Stereoresolution So Low?. Journal of Neuroscience, 2004, 24, 2077-2089. | 3.6 | 147 |

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|---|---|---|---|
| 19 | Estimating heading during real and simulated eye movements. Vision Research, 1996, 36, 431-443. | 1.4 | 144 |
| 20 | Why pictures look right when viewed from the wrong place. Nature Neuroscience, 2005, 8, 1401-1410. | 14.8 | 142 |
| 21 | Vestibular Heading Discrimination and Sensitivity to Linear Acceleration in Head and World Coordinates. Journal of Neuroscience, 2010, 30, 9084-9094. | 3.6 | 140 |
| 22 | Gravity as a Monocular Cue for Perception of Absolute Distance and/or Absolute Size. Perception, 1992, 21, 69-76. | 1.2 | 139 |
| 23 | Viewing Geometry Determines How Vision and Haptics Combine in Size Perception. Current Biology, 2003, 13, 483-488. | 3.9 | 138 |
| 24 | Why do animal eyes have pupils of different shapes?. Science Advances, 2015, 1, e1500391. | 10.3 | 136 |
| 25 | Gravitational acceleration as a cue for absolute size and distance?. Perception & Psychophysics, 1996, 58, 1066-1075. | 2.3 | 132 |
| 26 | Visual self-motion perception during head turns. Nature Neuroscience, 1998, 1, 732-737. | 14.8 | 132 |
| 27 | Blur and Disparity Are Complementary Cues to Depth. Current Biology, 2012, 22, 426-431. | 3.9 | 128 |
| 28 | Natural-Scene Statistics Predict How the Figureâ€“Ground Cue of Convexity Affects Human Depth Perception. Journal of Neuroscience, 2010, 30, 7269-7280. | 3.6 | 116 |
| 29 | Using blur to affect perceived distance and size. ACM Transactions on Graphics, 2010, 29, 1-16. | 7.2 | 113 |
| 30 | Infant Refraction and Accommodation. International Ophthalmology Clinics, 1980, 20, 205-232. | 0.7 | 106 |
| 31 | Sensitivity loss in odd-symmetric mechanisms and phase anomalies in peripheral vision. Nature, 1987, 326, 873-876. | 27.8 | 99 |
| 32 | Perceived head-centric speed is affected by both extra-retinal and retinal errors. Vision Research, 1998, 38, 941-945. | 1.4 | 93 |
| 33 | Stereopsis is adaptive for the natural environment. Science Advances, 2015, 1, . | 10.3 | 92 |
| 34 | Optimal presentation of imagery with focus cues on multi-plane displays. ACM Transactions on Graphics, 2015, 34, 1-12. | 7.2 | 87 |
| 35 | Accommodation and comfort in head-mounted displays. ACM Transactions on Graphics, 2017, 36, 1-11. | 7.2 | 85 |
| 36 | Creating effective focus cues in multi-plane 3D displays. Optics Express, 2011, 19, 20940. | 3.4 | 82 |

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|---|---|---|---|
| 37 | Visualâ€“Haptic Adaptation Is Determined by Relative Reliability. Journal of Neuroscience, 2010, 30, 7714-7721. | 3.6 | 80 |
| 38 | Adaptation to three-dimensional distortions in human vision. Nature Neuroscience, 2001, 4, 1063-1064. | 14.8 | 78 |
| 39 | Optical, receptoral, and retinal constraints on foveal and peripheral vision in the human neonate. Vision Research, 1998, 38, 3857-3870. | 1.4 | 76 |
| 40 | Are corresponding points fixed?. Vision Research, 2001, 41, 2457-2473. | 1.4 | 73 |
| 41 | Misperceptions in stereoscopic displays. , 2008, 2008, 23-32. | | 72 |
| 42 | The effects of contrast, spatial scale, and orientation on foveal and peripheral phase discrimination. Vision Research, 1991, 31, 1759-1786. | 1.4 | 70 |
| 43 | Estimator Reliability and Distance Scaling in Stereoscopic Slant Perception. Perception, 1999, 28, 217-242. | 1.2 | 70 |
| 44 | Limits of stereopsis explained by local cross-correlation. Journal of Vision, 2009, 9, 8-8. | 0.3 | 70 |
| 45 | Extra-retinal and perspective cues cause the small range of the induced effect. Vision Research, 1998, 38, 187-194. | 1.4 | 67 |
| 46 | Contrast sensitivity function of the infant visual system. Vision Research, 1976, 16, 867-III. | 1.4 | 66 |
| 47 | Infant Visual Preferences: A Review and New Theoretical Treatment. Advances in Child Development and Behavior, 1985, 19, 207-246. | 1.3 | 63 |
| 48 | Does chromatic sensitivity develop more slowly than luminance sensitivity?. Vision Research, 1993, 33, 2553-2562. | 1.4 | 61 |
| 49 | Ideal observer for heading judgments. Vision Research, 1996, 36, 471-490. | 1.4 | 60 |
| 50 | The rate of change of vergenceâ€“accommodation conflict affects visual discomfort. Vision Research, 2014, 105, 159-165. | 1.4 | 59 |
| 51 | Dynamic lens and monovision 3D displays to improve viewer comfort. Optics Express, 2016, 24, 11808. | 3.4 | 59 |
| 52 | Depth information and perceived self-motion during simulated gaze rotations. Vision Research, 1998, 38, 3129-3145. | 1.4 | 54 |
| 53 | The Limits of Human Stereopsis in Space and Time. Journal of Neuroscience, 2014, 34, 1397-1408. | 3.6 | 54 |
| 54 | Temporal presentation protocols in stereoscopic displays: Flicker visibility, perceived motion, and perceived depth. Journal of the Society for Information Display, 2011, 19, 271-297. | 2.1 | 53 |

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|---|---|---|---|
| 55 | Temporal mechanisms of multimodal binding. Proceedings of the Royal Society B: Biological Sciences, 2009, 276, 1761-1769. | 2.6 | 47 |
| 56 | The perceptual basis of common photographic practice. Journal of Vision, 2012, 12, 8-8. | 0.3 | 47 |
| 57 | 3D Displays. Annual Review of Vision Science, 2016, 2, 397-435. | 4.4 | 47 |
| 58 | Temporal contrast sensitivity in human infants. Vision Research, 1992, 32, 1163-1168. | 1.4 | 46 |
| 59 | The surface of the empirical horopter. Journal of Vision, 2008, 8, 7. | 0.3 | 46 |
| 60 | Binocular Eye Movements Are Adapted to the Natural Environment. Journal of Neuroscience, 2019, 39, 2877-2888. | 3.6 | 46 |
| 61 | The development of basic mechanisms of pattern vision: Spatial frequency channels. Journal of Experimental Child Psychology, 1985, 40, 501-527. | 1.4 | 43 |
| 62 | The effect of head tilt on meridional differences in acuity: Implications for orientation constancy. Perception & Psychophysics, 1975, 17, 17-22. | 2.3 | 39 |
| 63 | Blur and the perception of depth at occlusions. Journal of Vision, 2016, 16, 17. | 0.3 | 37 |
| 64 | The vertical horopter is not adaptable, but it may be adaptive. Journal of Vision, 2011, 11, 20-20. | 0.3 | 35 |
| 65 | Relative image size, not eye position, determines eye dominance switches. Vision Research, 2004, 44, 229-234. | 1.4 | 32 |
| 66 | Extraretinal and retinal amplitude and phase errors during Filehne illusion and path perception. Perception & Psychophysics, 2000, 62, 900-909. | 2.3 | 29 |
| 67 | The natural statistics of blur. Journal of Vision, 2016, 16, 23. | 0.3 | 29 |
| 68 | An analysis of binocular slant contrast. Perception, 1999, 28, 1121-1145. | 1.2 | 23 |
| 69 | The effects of luminance on FPL and VEP acuity in human infants. Vision Research, 1992, 32, 2005-2012. | 1.4 | 21 |
| 70 | Scotopic visual efficiency: Constraints by optics, receptor properties, and rod pooling. Vision Research, 1992, 32, 645-656. | 1.4 | 21 |
| 71 | Camera Focal Length and the Perception of Pictures. Ecological Psychology, 2014, 26, 30-46. | 1.1 | 19 |
| 72 | Human Stereopsis Is Not Limited by the Optics of the Well-Focused Eye. Journal of Neuroscience, 2011, 31, 9814-9818. | 3.6 | 14 |

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|---|---|---|---|
| 73 | Stereoscopic depth constancy. Philosophical Transactions of the Royal Society B: Biological Sciences, 2016, 371, 20150253. | 4.0 | 14 |
| 74 | Crossedâ€“uncrossed projections from primate retina are adapted to disparities of natural scenes. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, . | 7.1 | 14 |
| 75 | 240â€‰Hz OLED technology properties that can enable improved image quality. Journal of the Society for Information Display, 2014, 22, 346-356. | 2.1 | 13 |
| 76 | Visual discomfort with stereo 3D displays when the head is not upright. Proceedings of SPIE, 2012, 8288, 828814. | 0.8 | 12 |
| 77 | 65.1: Effective Spatial Resolution of Temporally and Spatially Interlaced Stereo 3D Televisions. Digest of Technical Papers SID International Symposium, 2012, 43, 879-882. | 0.3 | 9 |
| 78 | Stereoscopic 3D display technique using spatiotemporal interlacing has improved spatial and temporal properties. Optics Express, 2015, 23, 9252. | 3.4 | 9 |
| 79 | Perception of 3-D Layout in Stereo Displays. Information Display, 2009, 25, 12-16. | 0.2 | 9 |
| 80 | Motion artifacts on 240-Hz OLED stereoscopic 3D displays. Journal of the Society for Information Display, 2014, 22, 393-403. | 2.1 | 8 |
| 81 | Stereoscopic 3D display with color interlacing improves perceived depth. Optics Express, 2014, 22, 31924. | 3.4 | 7 |
| 82 | Neuroscience: What You See and Hear Is What You Get. Current Biology, 2004, 14, R236-R238. | 3.9 | 6 |
| 83 | Solving Parallax Error for 3D Eye Tracking. , 2021, , . | | 5 |
| 84 | The venetian-blind effect: a preference for zero disparity or zero slant?. Frontiers in Psychology, 2013, 4, 836. | 2.1 | 4 |
| 85 | Visible Artifacts and Limitations in Stereoscopic 3D Displays. Information Display, 2017, 33, 12-17. | 0.2 | 4 |
| 86 | The blur horopter: Retinal conjugate surface in binocular viewing. Journal of Vision, 2021, 21, 8. | 0.3 | 4 |
| 87 | Consequences of Incorrect Focus Cues in Stereo Displays. Journal of the Society for Information Display, 2008, 24, 7. | 2.1 | 4 |
| 88 | Optics and neural adaptation jointly limit human stereovision. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, . | 7.1 | 3 |
| 89 | Integrating High Fidelity Eye, Head and World Tracking in a Wearable Device. , 2021, , . | | 0 |