

# Barry L Winn

## List of Publications by Year in descending order

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Version: 2024-02-01

80  
papers

2,647  
citations

172457

29  
h-index

189892

50  
g-index

82  
all docs

82  
docs citations

82  
times ranked

3038  
citing authors

| #  | ARTICLE  | IF   | CITATIONS |
|----|--|------|-----------|
| 1  | Factors affecting light-adapted pupil size in normal human subjects. Investigative Ophthalmology and Visual Science, 1994, 35, 1132-7.   | 3.3  | 362       |
| 2  | Excitations in the field-induced quantum spin liquid state of $\hat{I}\pm$ -RuCl <sub>3</sub> . Npj Quantum Materials, 2018, 3, .  | 5.2  | 254       |
| 3  | Soft X-ray microscopy with a cryo scanning transmission X-ray microscope: I. Instrumentation, imaging and spectroscopy. Journal of Microscopy, 2000, 197, 68-79.   | 1.8  | 134       |
| 4  | Glasgow Acuity Cards: a new test for the measurement of letter acuity in children. Ophthalmic and Physiological Optics, 1993, 13, 400-404.   | 2.0  | 111       |
| 5  | A comparison of four direct geometry time-of-flight spectrometers at the Spallation Neutron Source. Review of Scientific Instruments, 2014, 85, 045113.  | 1.3  | 107       |
| 6  | Accommodative microfluctuations and pupil diameter. Vision Research, 1993, 33, 2083-2090.  | 1.4  | 74        |
| 7  | Arterial pulse modulates steady-state ocular accommodation. Current Eye Research, 1990, 9, 971-975.  | 1.5  | 72        |
| 8  | Magnetic anisotropy in ferromagnetic $\langle \text{mml:math} \text{xmlns:mml="http://www.w3.org/1998/Math/MathML"} \rangle \langle \text{mml:msub} \rangle \langle \text{mml:mi} \rangle \text{CrI} \langle \text{mml:mi} \rangle \langle \text{mml:mn} \rangle 3 \langle \text{mml:mn} \rangle 2 \langle \text{mml:msub} \rangle \langle \text{mml:mi} \rangle$<br>Physical Review B, 2020, 101, .   | 8.2  | 118       |
| 9  | Effect of target luminance on microfluctuations of accommodation. Ophthalmic and Physiological Optics, 1993, 13, 258-265.  | 2.0  | 63        |
| 10 | Experimental signatures of emergent quantum electrodynamics in Pr <sub>2</sub> Hf <sub>2</sub> O <sub>7</sub> . Nature Physics, 2018, 14, 711-715.   | 16.7 | 62        |
| 11 | Continuum of quantum fluctuations in a three-dimensional $S\hat{e}\%=\hat{a}\%1$ Heisenberg magnet. Nature Physics, 2019, 15, 54-59.   | 16.7 | 62        |
| 12 | Nearwork induced transient myopia during myopia progression. Current Eye Research, 2002, 24, 289-295.  | 1.5  | 59        |
| 13 | The role of neural and optical factors in limiting visual resolution in myopia. Vision Research, 1998, 38, 1713-1721.  | 1.4  | 58        |
| 14 | Recent progress on HYSPEC, and its polarization analysis capabilities. EPJ Web of Conferences, 2015, 83, 03017.  | 0.3  | 56        |
| 15 | Anisotropic Exchange within Decoupled Tetrahedra in the Quantum Breathing Pyrochlore $\langle \text{mml:math} \text{xmlns:mml="http://www.w3.org/1998/Math/MathML"} \text{display="inline"} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:msub} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:mi} \rangle \text{Ba} \langle \text{mml:mi} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:mn} \rangle 3 \langle \text{mml:mn} \rangle \langle \text{mml:mathvariant="nor} \rangle$ . Physical Review Letters, 2016, 116, 257204. | 7.8  | 55        |
| 16 | Observation of Magnon Polarization. Physical Review Letters, 2020, 125, 027201.  | 7.8  | 55        |
| 17 | Illumination for coherent soft X-ray applications: the new X1A beamline at the NSLS. Journal of Synchrotron Radiation, 2000, 7, 395-404.   | 2.4  | 54        |
| 18 | MCVINE – An object oriented Monte Carlo neutron ray tracing simulation package. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2016, 810, 86-99.   | 1.6  | 51        |



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|----|--|-----|-----------|
| 37 | The effect of abnormal fixational eye movements upon visual acuity in congenital nystagmus. Current Eye Research, 1999, 18, 194-202.   | 1.5 | 20        |
| 38 | Polarized 3He Neutron Spin Filters at Oak Ridge National Laboratory. Physics Procedia, 2013, 42, 191-199.  | 1.2 | 18        |
| 39 | A shutterâ€“photodiode combination for UV and soft X-ray beamlines. Journal of Synchrotron Radiation, 1999, 6, 50-50.  | 2.4 | 16        |
| 40 | Influence of doping on the spin dynamics and magnetoelectric effect in hexagonal<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>Y</mml:mi><mml:mn>0.7</mml:mn></mml:msub><mml:msub><mml:mi>Lu</mml:mi><mml:mn>0.3</mml:mn></mml:msub><mml:mi>O</mml:mi><mml:mn>3</mml:mn></mml:math>. Physical Review B, 2014, 89, .    | 1.6 | 16        |
| 41 | Massless Dirac magnons in the two dimensional van der Waals honeycomb magnet CrCl<sub>3</sub>. 2D Materials, 2022, 9, 015006.  | 4.4 | 16        |
| 42 | Contour interaction for high and low contrast optotypes in normal and amblyopic observers. Ophthalmic and Physiological Optics, 1999, 19, 253-60.  | 2.0 | 16        |
| 43 | Evidence for a Nematic Phase in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mi>La</mml:mi><mml:mn>1.75</mml:mn></mml:msub><mml:msub><mml:mi>Sr</mml:mi><mml:mn>1</mml:mn></mml:msub><mml:mi>O</mml:mi><mml:mn>3</mml:mn></mml:math>. Physical Review Letters, 2017, 118, 177601.                      | 1.5 | 16        |
| 44 | Reversals of the colour-depth illusion explained by ocular chromatic aberration. Vision Research, 1995, 35, 2675-2684.   | 1.4 | 14        |
| 45 | X1A: Secondâ€“generation undulator beamlines serving soft xâ€“ray spectromicroscopy experiments at the NSLS. Review of Scientific Instruments, 1996, 67, 3359-3359.  | 1.3 | 14        |
| 46 | Neutron inelastic scattering measurements of low-energy phonons in the multiferroic<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>BiFeO</mml:mi><mml:mn>3</mml:mn></mml:msub><mml:msub><mml:mi>La</mml:mi><mml:mn>1</mml:mn></mml:msub><mml:mi>O</mml:mi><mml:mn>7</mml:mn></mml:math>. Physical Review B, 2015, 91, . | 1.2 | 14        |
| 47 | Spin dynamics in the stripe-ordered buckled honeycomb lattice antiferromagnet <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>Ba</mml:mi><mml:mn>2</mml:mn></mml:msub><mml:mi>Cu</mml:mi><mml:mn>2</mml:mn></mml:mrow><mml:math>. Physical Review B, 2017, 96, .  | 1.2 | 14        |
| 48 | Spin dynamics and a nearly continuous magnetic phase transition in an entropy-stabilized oxide antiferromagnet. Physical Review Materials, 2020, 4, .  | 2.4 | 11        |
| 49 | Exotic Magnetic Field-Induced Spin-Superstructures in a Mixed Honeycomb-Triangular Lattice System. Physical Review X, 2019, 9, .   | 8.9 | 10        |
| 50 | A procedural guide to the modification of a Canon AutoRef R-1 for use as a continuously recording optometer. Ophthalmic and Physiological Optics, 1989, 9, 451-4.  | 2.0 | 9         |
| 51 | Spin exchange optical pumping based polarized 3He filling station for the Hybrid Spectrometer at the Spallation Neutron Source. Review of Scientific Instruments, 2013, 84, 065108.  | 1.3 | 8         |
| 52 | Forbidden phonon: Dynamical signature of bond symmetry breaking in the iron chalcogenides. Physical Review B, 2016, 94, .  | 3.2 | 8         |
| 53 | Reduced aniseikonia in axial anisometropia with contact lens correction. Ophthalmic and Physiological Optics, 1988, 8, 341-4.  | 2.0 | 8         |
| 54 | The effect of mental effort on open- and closed-loop accommodation. Ophthalmic and Physiological Optics, 1991, 11, 335-9.  | 2.0 | 7         |

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|----|---|-----|-----------|
| 55 | Objective concurrent measures of open-loop accommodation and vergence under photopic conditions. Investigative Ophthalmology and Visual Science, 1993, 34, 2996-3003. | 3.3 | 7         |
| 56 | The superiority of contact lenses in the correction of all anisometropia. Journal of the British Contact Lens Association, 1986, 9, 95-100.                           | 0.1 | 6         |
| 57 | Anomalous phonon damping in the high temperature shape memory alloy Ti 50 Pd 42 Cr 8. Applied Physics A: Materials Science and Processing, 2002, 74, s1182-s1184.     | 2.3 | 6         |
| 58 | Clinical evaluation of infrared autorefractors for use in contact lens over refraction. Contact Lens and Anterior Eye, 1997, 20, 137-142.                             | 1.7 | 5         |
| 59 | Creation of vortices by ferromagnetic order in $\text{ErNi}$ . Physica C: Superconductivity and Its Applications, 2010, 470, S716-S718.                               | 1.2 | 5         |
| 60 | Accommodation microfluctuations and pupil size during sustained viewing of visual display terminals. Ophthalmic and Physiological Optics, 2000, 20, 5-10.             | 2.0 | 5         |
| 61 | <title>Scanning transmission x-ray microscope at the NSLS: from XANES to cryo</title>. , 1995, , .  |     | 4         |
| 62 | <title>Methods to remove distortion artifacts in scanned projections</title>. , 1999, 3772, 237.  |     | 4         |
| 63 | Data processing workflow for time of flight polarized neutrons inelastic measurements. Journal of Physics: Conference Series, 2017, 862, 012023.                      | 0.4 | 4         |
| 64 | Power spectrum analysis in the study of ocular mechanisms. Ophthalmic and Physiological Optics, 1987, 7, 321-4.   | 2.0 | 4         |
| 65 | The influence of method on the stability of dark focus position of accommodation. Ophthalmic and Physiological Optics, 1981, 1, 79-90.                                | 2.0 | 4         |
| 66 | Recent developments in scanning microscopy at Stony Brook. AIP Conference Proceedings, 2000, , .  | 0.4 | 3         |
| 67 | Phonon coupling to dynamic short-range polar order in a relaxor ferroelectric near the morphotropic phase boundary. Physical Review B, 2015, 92, .                    | 3.2 | 3         |
| 68 | <title>Considerations for a soft x-ray spectromicroscopy beamline</title>. , 1996, , .  |     | 2         |
| 69 | Sealed cell for in-water measurements. AIP Conference Proceedings, 2000, , .  | 0.4 | 2         |
| 70 | Positional acuity in amblyopia: does a perceptual consequence of neural recruitment exist?. Ophthalmic and Physiological Optics, 1998, 18, 423-9.                     | 2.0 | 2         |
| 71 | Visual function thresholds in children. Current Eye Research, 2000, 21, 616-26.   | 1.5 | 2         |
| 72 | The Triple-Axis Spectrometers at the High Flux Isotope Reactor. Neutron News, 2008, 19, 18-21.  | 0.2 | 1         |

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|----|---|-----|-----------|
| 73 | Structural Phase Transition in AuZn Alloys. Journal of Physics: Conference Series, 2010, 251, 012027.   | 0.4 | 1         |
| 74 | The use of coherence functions in the study of ocular mechanisms. Ophthalmic and Physiological Optics, 1995, 15, 311-7.   | 2.0 | 1         |
| 75 | Assessment of retinal-neural function before neodymium:YAG laser capsulotomy. Investigative Ophthalmology and Visual Science, 1995, 36, 1155-62.                                    | 3.3 | 1         |
| 76 | Open-loop accommodation in emmetropia and myopia. Current Eye Research, 2000, 20, 190-4.  | 1.5 | 1         |
| 77 | Imaging, Spectroscopy and Tomography of Frozen Hydrated Specimens With the Cryo Scanning Transmission X-Ray Microscope at The NSLS. Microscopy and Microanalysis, 1998, 4, 354-355. | 0.4 | 0         |
| 78 | Magnetic field-induced change of modulated antiferromagnetic correlations for with. Physica B: Condensed Matter, 2006, 385-386, 153-155.  | 2.7 | 0         |
| 79 | Amblyopia, accommodation and colour. Ophthalmic and Physiological Optics, 1987, 7, 365-72.  | 2.0 | 0         |
| 80 | Anisotropic spin-wave excitations in multiferroic $\text{BiFeO}_3$ . Physical Review B, 2022, 105, .  |     |           |