

# Pablo Artal Soriano

## List of Publications by Year in descending order

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Version: 2024-02-01

333  
papers

13,005  
citations

26567

56  
h-index

34900

98  
g-index

339  
all docs

339  
docs citations

339  
times ranked

4132  
citing authors

| #  | ARTICLE   | IF  | CITATIONS |
|----|---|-----|-----------|
| 1  | Energy-efficient design of a presbyopia correction wearable powered by mobile GPUs and FPGAs. Journal of Supercomputing, 2022, 78, 11657-11679.                                     | 2.4 | 2         |
| 2  | Intraocular scatter compensation with spatial light amplitude modulation for improved vision in simulated cataractous eyes. Biomedical Optics Express, 2022, 13, 2174.              | 1.5 | 1         |
| 3  | Phase-only modulation with economic and compact vertical aligned liquid crystal devices. , 2022, , .  |     | 0         |
| 4  | Peripheral Refraction and Contrast Detection Sensitivity in Pseudophakic Patients Implanted With a New Meniscus Intraocular Lens. Journal of Refractive Surgery, 2022, 38, 229-234. | 1.1 | 7         |
| 5  | Instrument for fast whole-field peripheral refraction in the human eye. Biomedical Optics Express, 2022, 13, 2947.  | 1.5 | 5         |
| 6  | Optical Principles for Refractive Surgery. , 2022, , 1099-1107.   |     | 0         |
| 7  | Optical Principles for Refractive Surgery. , 2021, , 1-10.  |     | 0         |
| 8  | Increased crystalline lens coverage in optical coherence tomography with oblique scanning and volume stitching. Biomedical Optics Express, 2021, 12, 1529.                          | 1.5 | 2         |
| 9  | Volumetric Optical Imaging and Quantitative Analysis of Age-Related Changes in Anterior Human Vitreous. , 2021, 62, 31.   |     | 9         |
| 10 | Light scattering in intraocular lenses explanted 15 to 40 years after surgery. Biomedical Optics Express, 2021, 12, 3485.   | 1.5 | 3         |
| 11 | Binocular dynamics of accommodation, convergence, and pupil size in myopes. Biomedical Optics Express, 2021, 12, 3282.  | 1.5 | 6         |
| 12 | Disparity between central and peripheral refraction inheritance in twins. Scientific Reports, 2021, 11, 12196.  | 1.6 | 0         |
| 13 | Simulating Outcomes of Cataract Surgery: Important Advances in Ophthalmology. Annual Review of Biomedical Engineering, 2021, 23, 277-306.   | 5.7 | 17        |
| 14 | Intraocular Scattering, Blinking Rate, and Tear Film Osmolarity After Exposure to Environmental Stress. Translational Vision Science and Technology, 2021, 10, 12.                  | 1.1 | 4         |
| 15 | Applications of augmented reality in ophthalmology [Invited]. Biomedical Optics Express, 2021, 12, 511.   | 1.5 | 28        |
| 16 | Wavefront shaping for intraocular scattering correction. , 2021, , .  |     | 0         |
| 17 | Double-pass wavefront shaping for scatter correction in a cataractâ€™s model. Optics Express, 2021, 29, 42208.  | 1.7 | 4         |
| 18 | Comparative Analysis of Optical Compensation Methods for Deblurring of Retinal Image in Cataractous Type Media. , 2021, , .   |     | 1         |

| #  | ARTICLE   | IF   | CITATIONS |
|----|---|------|-----------|
| 19 | Handheld instrument for the measurement of Macular Pigment Optical Density using structured light. , 2021, , .  |      | 0         |
| 20 | In vivo multiphoton imaging of the human ocular anterior segment. , 2021, , .   |      | 0         |
| 21 | Multiphoton image enhancement with variable squared cubic phase masks. , 2021, , .  |      | 0         |
| 22 | Improving Multiphoton Microscopy by Combining Spherical Aberration Patterns and Variable Axicons. Photonics, 2021, 8, 573.  | 0.9  | 1         |
| 23 | Straylight in Different Types of Intraocular Lenses. Translational Vision Science and Technology, 2020, 9, 16.  | 1.1  | 5         |
| 24 | Portable device for presbyopia correction with optoelectronic lenses driven by pupil response. Scientific Reports, 2020, 10, 20293.   | 1.6  | 10        |
| 25 | The Role of Thermal Accumulation on the Fabrication of Diffraction Gratings in Ophthalmic PHEMA by Ultrashort Laser Direct Writing. Polymers, 2020, 12, 2965.                             | 2.0  | 8         |
| 26 | Adaptive-Optics Polarization-Sensitive Second Harmonic Generation Microscopy. , 2020, , .   |      | 0         |
| 27 | Inheritance of Refractive Error in Millennials. Scientific Reports, 2020, 10, 8173.   | 1.6  | 4         |
| 28 | Fluorescent bicolour sensor for low-background neutrinoless double $\hat{I}^2$ decay experiments. Nature, 2020, 583, 48-54.   | 13.7 | 23        |
| 29 | 33 <sup>rd</sup> International Pupil Colloquium, Murcia, Universidad de Murcia (Spain); 2 <sup>nd</sup> $\hat{I}^4$ October 2019. Ophthalmic and Physiological Optics, 2020, 40, 376-376. | 1.0  | 0         |
| 30 | Two-Dimensional, High-Resolution Peripheral Refraction in Adults with Isomyopia and Anisomyopia. , 2020, 61, 16.  |      | 11        |
| 31 | Peripheral image quality in pseudophakic eyes. Biomedical Optics Express, 2020, 11, 1892.   | 1.5  | 6         |
| 32 | Two-dimensional peripheral refraction and retinal image quality in orthokeratology lens wearers. Biomedical Optics Express, 2020, 11, 3523.   | 1.5  | 11        |
| 33 | In vivo SS-OCT imaging of crystalline lens sutures. Biomedical Optics Express, 2020, 11, 5388.  | 1.5  | 10        |
| 34 | Adaptation to the eye's chromatic aberration measured with an adaptive optics visual simulator. Optics Express, 2020, 28, 37450.  | 1.7  | 6         |
| 35 | Phase-only modulation with two vertical aligned liquid crystal devices. Optics Express, 2020, 28, 34180.  | 1.7  | 9         |
| 36 | Wavefront-shaping-based correction of optically simulated cataracts. Optica, 2020, 7, 22.   | 4.8  | 17        |

| #  | ARTICLE   | IF  | CITATIONS |
|----|---|-----|-----------|
| 37 | Spherical Aberration Customization to Extend the Depth of Focus With a Clinical Adaptive Optics Visual Simulator. <i>Journal of Refractive Surgery</i> , 2020, 36, 223-229.                       | 1.1 | 16        |
| 38 | Double-pass wavefront shaping for vision through cataracts. , 2020, , .   |     | 0         |
| 39 | Vision with pulsed infrared light is mediated by nonlinear optical processes. <i>Biomedical Optics Express</i> , 2020, 11, 5603.  | 1.5 | 8         |
| 40 | Adaptive Optics Visual Simulators: New tools for a complete and customized vision evaluation. , 2020, , .   |     | 0         |
| 41 | Quantitative Discrimination of Healthy and Diseased Corneas With Second Harmonic Generation Microscopy. <i>Translational Vision Science and Technology</i> , 2019, 8, 51.                         | 1.1 | 15        |
| 42 | In vivo two-photon microscopy of the human eye. <i>Scientific Reports</i> , 2019, 9, 10121.   | 1.6 | 33        |
| 43 | Two-dimensional Peripheral Refraction and Retinal Image Quality in Emmetropic Children. <i>Scientific Reports</i> , 2019, 9, 16203.   | 1.6 | 16        |
| 44 | Simultaneous aberration and aperture control using a single spatial light modulator. <i>Optics Express</i> , 2019, 27, 12399.   | 1.7 | 8         |
| 45 | One-year follow-up of changes in refraction and aberrations induced by corneal incision. <i>PLoS ONE</i> , 2019, 14, e0224823.  | 1.1 | 7         |
| 46 | 2-D Peripheral image quality metrics with different types of multifocal contact lenses. <i>Scientific Reports</i> , 2019, 9, 18487.   | 1.6 | 4         |
| 47 | GPU-based processing of Hartmann-Shack images for accurate and high-speed ocular wavefront sensing. <i>Future Generation Computer Systems</i> , 2019, 91, 177-190.                                | 4.9 | 14        |
| 48 | Fabrication and characterization of diffraction gratings in ophthalmic polymers by using UV direct laser interference patterning. <i>Applied Surface Science</i> , 2019, 476, 128-135.            | 3.1 | 14        |
| 49 | Assessment of subjective refraction with a clinical adaptive optics visual simulator. <i>Journal of Cataract and Refractive Surgery</i> , 2019, 45, 87-93.  | 0.7 | 27        |
| 50 | Adaptation to Brightness Perception in Patients Implanted With a Small Aperture. <i>American Journal of Ophthalmology</i> , 2019, 197, 36-44.   | 1.7 | 4         |
| 51 | Patient-specific determination of change in ocular spherical aberration to improve near and intermediate visual acuity of presbyopic eyes. <i>Journal of Biophotonics</i> , 2019, 12, e201800259. | 1.1 | 5         |
| 52 | Objective method for measuring the macular pigment optical density in the eye. <i>Biomedical Optics Express</i> , 2019, 10, 3572.   | 1.5 | 8         |
| 53 | Single-pixel imaging of the retina through scattering media. <i>Biomedical Optics Express</i> , 2019, 10, 4159.   | 1.5 | 28        |
| 54 | Wide-range adaptive optics visual simulator with a tunable lens. <i>Journal of the Optical Society of America A: Optics and Image Science, and Vision</i> , 2019, 36, 722.                        | 0.8 | 12        |

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|----|---|-----|-----------|
| 55 | Tear-film dynamics by combining double-pass images, pupil retro-illumination, and contrast sensitivity. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2019, 36, B138.  | 0.8 | 4         |
| 56 | Impact of longitudinal chromatic aberration on through-focus visual acuity. Optics Express, 2019, 27, 35935.  | 1.7 | 17        |
| 57 | Effect of Crystalline Lens Aberrations on Adaptive Optics Simulation of Intraocular Lenses. Journal of Refractive Surgery, 2019, 35, 126-131.   | 1.1 | 12        |
| 58 | Optimization of a SS-OCT with a focus tunable lens for enhanced visualization of ocular opacities. , 2019, , .  |     | 0         |
| 59 | Comparing the performance of a femto fiber-based laser and a Ti:sapphire used for multiphoton microscopy applications. Applied Optics, 2019, 58, 3830.  | 0.9 | 1         |
| 60 | My life in Visual Optics: from the lab to the real world. Journal of Vision, 2019, 19, 1.   | 0.1 | 31        |
| 61 | Improved multiphoton imaging in biological samples by using variable pulse compression and wavefront assessment. Optics Communications, 2018, 422, 44-51.   | 1.0 | 7         |
| 62 | Consecutive case series of 244 age-related macular degeneration patients undergoing implantation with an extended macular vision IOL. European Journal of Ophthalmology, 2018, 28, 198-203.                 | 0.7 | 13        |
| 63 | Design of an accurate and high-speed binocular pupil tracking system based on GPGPUs. Journal of Supercomputing, 2018, 74, 1836-1862.   | 2.4 | 12        |
| 64 | Which Information Can Be Obtained from Collagen-Based Tissues Imaged with Polarization-Sensitive Second Harmonic Microscopy?. , 2018, , .   |     | 0         |
| 65 | Volumetric macro- and micro-scale assessment of crystalline lens opacities in cataract patients using long-depth-range swept source optical coherence tomography. Biomedical Optics Express, 2018, 9, 3821. | 1.5 | 36        |
| 66 | Light scattering in the human eye modelled as random phase perturbations. Biomedical Optics Express, 2018, 9, 2664.   | 1.5 | 8         |
| 67 | Wavefront correction in two-photon microscopy with a multi-actuator adaptive lens. Optics Express, 2018, 26, 14278.   | 1.7 | 21        |
| 68 | Swept source optical coherence tomography and tunable lens technology for comprehensive imaging and biometry of the whole eye. Optica, 2018, 5, 52.   | 4.8 | 43        |
| 69 | High speed visual stimuli generator to estimate the minimum presentation time required for an orientation discrimination task. Biomedical Optics Express, 2018, 9, 2640.                                    | 1.5 | 1         |
| 70 | Three-Dimensional Cataract Crystalline Lens Imaging With Swept-Source Optical Coherence Tomography. , 2018, 59, 897.  |     | 56        |
| 71 | Perceived brightness with small apertures. Journal of Cataract and Refractive Surgery, 2018, 44, 734-737.   | 0.7 | 7         |
| 72 | Effect of intraocular scattering in macular pigment optical density measurements. Journal of Biomedical Optics, 2018, 23, 1.  | 1.4 | 5         |

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|----|--|-----|-----------|
| 73 | Asymmetric wide-field optical model of the human eye with tilted and decentered crystalline lens that reproduces experimentally measured aberrations: errata. <i>Optica</i> , 2018, 5, 1461.       | 4.8 | 4         |
| 74 | Initial Clinical Results With a Novel Monofocal-Type Intraocular Lens for Extended Macular Vision in Patients With Macular Degeneration. <i>Journal of Refractive Surgery</i> , 2018, 34, 718-725. | 1.1 | 5         |
| 75 | Optical correction of the effects of cataracts. , 2018, , .  |     | 0         |
| 76 | The Impact of Scattering on Vision and the Importance of Measuring It.. , 2018, , .  |     | 0         |
| 77 | Wavefront shaping to correct intraocular scattering. , 2018, , .   |     | 0         |
| 78 | Second harmonic generation microscopy of the living human cornea. , 2018, , .  |     | 2         |
| 79 | A single pixel camera video ophthalmoscope. , 2017, , .  |     | 0         |
| 80 | Vision science and adaptive optics, the state of the field. <i>Vision Research</i> , 2017, 132, 3-33.  | 0.7 | 115       |
| 81 | Imaging through scattering media with single-pixel detection. , 2017, , .  |     | 0         |
| 82 | Scattering contribution to the double-pass PSF using Monte Carlo simulations. <i>Ophthalmic and Physiological Optics</i> , 2017, 37, 342-346.  | 1.0 | 7         |
| 83 | Comparison of intraocular lens decentration and tilt measurements using 2 Purkinje meter systems. <i>Journal of Cataract and Refractive Surgery</i> , 2017, 43, 648-655.                           | 0.7 | 8         |
| 84 | Variability in angle $\hat{\rho}$ and its influence on higher-order aberrations in pseudophakic eyes. <i>Journal of Cataract and Refractive Surgery</i> , 2017, 43, 1015-1019.                     | 0.7 | 21        |
| 85 | Multiphoton imaging of thick samples combining axicons and spherical aberration. , 2017, , .   |     | 0         |
| 86 | Performance of a differential contrast sensitivity method to measure intraocular scattering. <i>Biomedical Optics Express</i> , 2017, 8, 1382.   | 1.5 | 6         |
| 87 | Achromatic doublet intraocular lens for full aberration correction. <i>Biomedical Optics Express</i> , 2017, 8, 2396.  | 1.5 | 14        |
| 88 | Comparison of second harmonic microscopy images of collagen-based ocular tissues with 800 and 1045 nm. <i>Biomedical Optics Express</i> , 2017, 8, 5065.   | 1.5 | 8         |
| 89 | Chromatic aberration control with liquid crystal spatial phase modulators. <i>Optics Express</i> , 2017, 25, 9793.   | 1.7 | 17        |
| 90 | Visual acuity in two-photon infrared vision. <i>Optica</i> , 2017, 4, 1488.  | 4.8 | 19        |

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|-----|--|-----|-----------|
| 91  | Micrometric Control of the Optics of the Human Eye: Environment or Genes?. , 2017, 58, 1964.   |     | 4         |
| 92  | Dual-mode multiphoton and linear confocal microscopy of the living human eye. , 2017, , .  |     | 0         |
| 93  | Oscillations of the crystalline lens in the human eye. , 2017, , .   |     | 0         |
| 94  | Night myopia is reduced in binocular vision. Journal of Vision, 2016, 16, 16.  | 0.1 | 8         |
| 95  | Environmental and Genetic Factors Explain Differences in Intraocular Scattering. , 2016, 57, 163.  |     | 9         |
| 96  | Performance evaluation of a two detector camera for real-time video. Applied Optics, 2016, 55, 10198.  | 2.1 | 8         |
| 97  | Minimum change in spherical aberration that can be perceived. Biomedical Optics Express, 2016, 7, 3471.  | 1.5 | 16        |
| 98  | Intraocular scattering compensation in retinal imaging. Biomedical Optics Express, 2016, 7, 3996.  | 1.5 | 11        |
| 99  | Interferometric method for phase calibration in liquid crystal spatial light modulators using a self-generated diffraction-grating. Optics Express, 2016, 24, 14159. | 1.7 | 55        |
| 100 | Single pixel camera ophthalmoscope. Optica, 2016, 3, 1056.   | 4.8 | 66        |
| 101 | Performance evaluation of a sensorless adaptive optics multiphoton microscope. Journal of Microscopy, 2016, 261, 249-258.  | 0.8 | 30        |
| 102 | The accommodative ciliary muscle function is preserved in older humans. Scientific Reports, 2016, 6, 25551.  | 1.6 | 22        |
| 103 | Imaging through scattering media by microstructured illumination. , 2016, , .  |     | 0         |
| 104 | The Eye as an Optical Instrument. , 2016, , 285-297.   |     | 2         |
| 105 | Optical Measurement of Straylight in Eyes With Cataract. Journal of Refractive Surgery, 2016, 32, 846-850.   | 1.1 | 10        |
| 106 | Novel Approach for Generating Ocular Wavefronts. , 2016, , .   |     | 1         |
| 107 | Dynamics of the near response under natural viewing conditions with an open-view sensor. Biomedical Optics Express, 2015, 6, 4200.                                   | 1.5 | 25        |
| 108 | GPU-Accelerated High-Speed Eye Pupil Tracking System. , 2015, , .  |     | 4         |

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|-----|---|------|-----------|
| 109 | Injectable intraocular telescope: Pilot study. Journal of Cataract and Refractive Surgery, 2015, 41, 2125-2135.   | 0.7  | 26        |
| 110 | Impact of scatter on double-pass image quality and contrast sensitivity measured with a single instrument. Biomedical Optics Express, 2015, 6, 4841.  | 1.5  | 12        |
| 111 | Relationship between Induced Spherical Aberration and Depth of Focus after Hyperopic LASIK in Presbyopic Patients. Ophthalmology, 2015, 122, 233-243.   | 2.5  | 23        |
| 112 | Image Formation in the Living Human Eye. Annual Review of Vision Science, 2015, 1, 1-17.  | 2.3  | 21        |
| 113 | Effect of the equivalent refractive index on intraocular lens power prediction with ray tracing after myopic laser in situ keratomileusis. Journal of Cataract and Refractive Surgery, 2015, 41, 1030-1037. | 0.7  | 20        |
| 114 | Fast optical measurement of intraocular straylight. Proceedings of SPIE, 2015, , .  | 0.8  | 0         |
| 115 | Location of Achromatizing Pupil Position and First Purkinje Reflection in a Normal Population. Investigative Ophthalmology and Visual Science, 2015, 56, 962-966.   | 3.3  | 13        |
| 116 | An aspheric intraocular telescope for age-related macular degeneration patients. Biomedical Optics Express, 2015, 6, 1010.  | 1.5  | 19        |
| 117 | Second-harmonic generation microscopy of photocurable polymer intrastromal implants in ex-vivo corneas. Biomedical Optics Express, 2015, 6, 2211.   | 1.5  | 12        |
| 118 | Spatial properties of fundus reflectance and red-green relative spectral sensitivity. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2015, 32, 1723.                    | 0.8  | 6         |
| 119 | Wide-field optical model of the human eye with asymmetrically tilted and decentered lens that reproduces measured ocular aberrations. Optica, 2015, 2, 124.   | 4.8  | 66        |
| 120 | Initial Clinical Results of a New Telescopic IOL Implanted in Patients With Dry Age-Related Macular Degeneration. Journal of Refractive Surgery, 2015, 31, 158-162.   | 1.1  | 22        |
| 121 | Lens Oscillations in the Human Eye. Implications for Post-Saccadic Suppression of Vision. PLoS ONE, 2014, 9, e95764.  | 1.1  | 32        |
| 122 | Retinal cell imaging in myopic chickens using adaptive optics multiphoton microscopy. Biomedical Optics Express, 2014, 5, 664.  | 1.5  | 4         |
| 123 | Comparison of binocular through-focus visual acuity with monovision and a small aperture inlay. Biomedical Optics Express, 2014, 5, 3355.   | 1.5  | 24        |
| 124 | Binocular visual performance with aberration correction as a function of light level. Journal of Vision, 2014, 14, 6-6.   | 0.1  | 13        |
| 125 | Binocular visual acuity for the correction of spherical aberration in polychromatic and monochromatic light. Journal of Vision, 2014, 14, 8-8.  | 0.1  | 28        |
| 126 | Optics of the eye and its impact in vision: a tutorial. Advances in Optics and Photonics, 2014, 6, 340.   | 12.1 | 92        |



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|-----|--|-----|-----------|
| 127 | Minimum amount of astigmatism that should be corrected. Journal of Cataract and Refractive Surgery, 2014, 40, 13-19.   | 0.7 | 105       |
| 128 | Binocular open-view instrument to measure aberrations and pupillary dynamics. Optics Letters, 2014, 39, 4773.  | 1.7 | 12        |
| 129 | Refractive accuracy with light-adjustable intraocular lenses. Journal of Cataract and Refractive Surgery, 2014, 40, 1075-1084.   | 0.7 | 24        |
| 130 | Compact optical integration instrument to measure intraocular straylight. Biomedical Optics Express, 2014, 5, 3036.  | 1.5 | 26        |
| 131 | Extended Depth of Focus With Induced Spherical Aberration in Light-Adjustable Intraocular Lenses. American Journal of Ophthalmology, 2014, 157, 142-149.   | 1.7 | 32        |
| 132 | Wavelength Dependence of the Ocular Straylight. , 2013, 54, 3702.  |     | 25        |
| 133 | Impact on stereo-acuity of two presbyopia correction approaches: monovision and small aperture inlay. Biomedical Optics Express, 2013, 4, 822.   | 1.5 | 37        |
| 134 | Performance of a 6-Pi liquid crystal on silicon (LCoS) spatial light modulator under white light illumination for visual applications. , 2013, , .   |     | 1         |
| 135 | Multiphoton imaging microscopy at deeper layers with adaptive optics control of spherical aberration. Journal of Biomedical Optics, 2013, 19, 011007.  | 1.4 | 15        |
| 136 | Comparison of the Optical Image Quality in the Periphery of Phakic and Pseudophakic Eyes. , 2013, 54, 3594.  |     | 24        |
| 137 | Using Adaptive Optics Technology for Visual Testing: a personal adventure. , 2013, , .   |     | 0         |
| 138 | Comment on "Measurement and correction of transverse chromatic offsets for multi-wavelength retinal microscopy in the living eye". Biomedical Optics Express, 2012, 3, 2772.                             | 1.5 | 0         |
| 139 | Impact of positive coupling of the eye's trefoil and coma in retinal image quality and visual acuity. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2012, 29, 1667. | 0.8 | 5         |
| 140 | Comparison of two scanning instruments to measure peripheral refraction in the human eye. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2012, 29, 258.              | 0.8 | 5         |
| 141 | Grading nuclear, cortical and posterior subcapsular cataracts using an objective scatter index measured with a double-pass system. British Journal of Ophthalmology, 2012, 96, 1204-1210.                | 2.1 | 50        |
| 142 | Optical modeling of a corneal inlay in real eyes to increase depth of focus: Optimum centration and residual defocus. Journal of Cataract and Refractive Surgery, 2012, 38, 270-277.                     | 0.7 | 49        |
| 143 | Effect of corneal aberrations on intraocular lens power calculations. Journal of Cataract and Refractive Surgery, 2012, 38, 1325-1332.   | 0.7 | 25        |
| 144 | Evaluating the peripheral optical effect of multifocal contact lenses. Ophthalmic and Physiological Optics, 2012, 32, 527-534.   | 1.0 | 41        |

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|-----|--|-----|-----------|
| 145 | Small-aperture contact lenses are not surrogates for corneal inlays. Journal of Cataract and Refractive Surgery, 2012, 38, 2061-2062.  | 0.7 | 1         |
| 146 | The wide-angle point spread function of the human eye reconstructed by a new optical method. Journal of Vision, 2012, 12, 20-20.   | 0.1 | 42        |
| 147 | Optical Quality of Emmetropic and Myopic Eyes in the Periphery Measured with High-Angular Resolution. , 2012, 53, 3405.  |     | 58        |
| 148 | Night Myopia Studied with an Adaptive Optics Visual Analyzer. PLoS ONE, 2012, 7, e40239.   | 1.1 | 21        |
| 149 | Adaptive Optics for Visual Testing: from the Lab to the World. , 2012, , .   |     | 0         |
| 150 | Adaptive Optics in Ocular Optical Coherence Tomography. Biological and Medical Physics Series, 2012, , 209-235.  | 0.3 | 0         |
| 151 | A Randomized Comparison of Pupil-Centered Versus Vertex-Centered Ablation in LASIK Correction of Hyperopia. American Journal of Ophthalmology, 2011, 152, 591-599.e2.                                  | 1.7 | 34        |
| 152 | Peripheral aberrations in the human eye for different wavelengths: off-axis chromatic aberration. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2011, 28, 1871.   | 0.8 | 22        |
| 153 | Modeling the mechanism of compensation of aberrations in the human eye for accommodation and aging. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2011, 28, 1889. | 0.8 | 8         |
| 154 | Analysis of the chicken retina with an adaptive optics multiphoton microscope. Biomedical Optics Express, 2011, 2, 1637.   | 1.5 | 25        |
| 155 | Customized eye models for determining optimized intraocular lenses power. Biomedical Optics Express, 2011, 2, 1649.  | 1.5 | 36        |
| 156 | Femtosecond infrared intrastromal ablation and backscattering-mode adaptive-optics multiphoton microscopy in chicken corneas. Biomedical Optics Express, 2011, 2, 2950.                                | 1.5 | 12        |
| 157 | Fast scanning peripheral wave-front sensor for the human eye. Optics Express, 2011, 19, 7903.  | 1.7 | 53        |
| 158 | Binocular adaptive optics vision analyzer with full control over the complex pupil functions. Optics Letters, 2011, 36, 4779.  | 1.7 | 34        |
| 159 | Objective optical assessment of tear-film quality dynamics in normal and mildly symptomatic dry eyes. Journal of Cataract and Refractive Surgery, 2011, 37, 1481-1487.                                 | 0.7 | 100       |
| 160 | Impact of intraocular lens haptic design and orientation on decentration and tilt. Journal of Cataract and Refractive Surgery, 2011, 37, 1768-1774.  | 0.7 | 52        |
| 161 | An Objective Scatter Index Based on Double-Pass Retinal Images of a Point Source to Classify Cataracts. PLoS ONE, 2011, 6, e16823.   | 1.1 | 194       |
| 162 | Analysis of Corneal Stroma Organization With Wavefront Optimized Nonlinear Microscopy. Cornea, 2011, 30, 692-701.  | 0.9 | 59        |

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|-----|---|-----|-----------|
| 163 | Temporal evolution of ocular aberrations following laser <i>in situ</i> keratomileusis. <i>Ophthalmic and Physiological Optics</i> , 2011, 31, 421-428.   | 1.0 | 16        |
| 164 | Multiphoton Microscopy of Ex Vivo Corneas after Collagen Cross-Linking. , 2011, 52, 5325.   |     | 71        |
| 165 | Binocular Visual Simulation of a Corneal Inlay to Increase Depth of Focus. , 2011, 52, 5273.  |     | 51        |
| 166 | Myopia: Why Study the Mechanisms of Myopia? Novel Approaches to Risk Factors Signaling Eye Growth- How Could Basic Biology Be Translated into Clinical Insights? Where Are Genetic and Proteomic Approaches Leading? How Does Visual Function Contribute to and Interact with Ametropia? Does Eye Shape Matter? Why Ametropia at All?. <i>Optometry and Vision Science</i> , 2011, 88, 404-447. | 0.6 | 10        |
| 167 | Symmetries in peripheral ocular aberrations. <i>Journal of Modern Optics</i> , 2011, 58, 1690-1695.   | 0.6 | 13        |
| 168 | History and Future of Ophthalmic Adaptive Optics. , 2011, , .   |     | 0         |
| 169 | Adaptive optics multiphoton microscopy. , 2010, , .   |     | 1         |
| 170 | Surface geometry and optical aberrations of ex-vivo crystalline lenses. , 2010, , .   |     | 1         |
| 171 | Nonlinear 3D microscopy of ex vivo corneas. <i>Proceedings of SPIE</i> , 2010, , .  | 0.8 | 2         |
| 172 | Binocular adaptive optics visual simulator: understanding the impact of aberrations on actual vision. <i>Proceedings of SPIE</i> , 2010, , .  | 0.8 | 0         |
| 173 | Hybrid adaptive optics visual simulator combining a liquid crystal phase modulator and a deformable mirror. , 2010, , .   |     | 0         |
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