

Pablo Artal Journal Publications

1987 to 2026

341 publications | Updated 22 October 2026

Articles and reviews, together with letters, editorials, corrections and professional journal contributions. Books, chapters, patents, theses, conference abstracts and proceedings are excluded. Ordered from earliest to latest, alphabetically within each year.

Reconciled against the captured Google Scholar bibliography, the Scopus export, ORCID, University of Murcia records, historical CVs and publisher metadata. Author order is retained; initials are preserved when full names are not established. This is the consolidated list of identified and checked publications; absolute completeness cannot be guaranteed. Citation counts are omitted because they vary by database and date.

Bibliographic note: one paper on the European Adaptive Optics Summer School has conflicting volume and publication years. The discrepancy is flagged in its entry.

1987

1. J Santamaría; P Artal; J Bescós (1987). **Determination of the point-spread function of human eyes using a hybrid optical-digital method.** Journal of the Optical Society of America A 4(6), 1109-1114. <https://doi.org/10.1364/josaa.4.001109>

1988

2. F Soria; P Artal; J Bescos; K Heinemann (1988). **Digital image processing of nanometer-size metal particles on amorphous substrates.** Ultramicroscopy 24(1), 19-25. [https://doi.org/10.1016/0304-3991\(88\)90323-3](https://doi.org/10.1016/0304-3991(88)90323-3)
3. P Artal; J Santamaría; J Bescós (1988). **Phase-transfer function of the human eye and its influence on point-spread function and wave aberration.** Journal of the Optical Society of America A 5(10), 1791-1795. <https://doi.org/10.1364/josaa.5.001791>
4. P Artal; J Santamaría; J Bescós (1988). **Retrieval of wave aberration of human eyes from actual point-spread-function data.** Journal of the Optical Society of America A 5(8), 1201-1206. <https://doi.org/10.1364/josaa.5.001201>

1989

5. P Artal; R Navarro (1989). **High-resolution imaging of the living human fovea: measurement of the intercenter cone distance by speckle interferometry.** Optics Letters 14(20), 1098-1100. <https://doi.org/10.1364/ol.14.001098>
6. P Artal; M Avalos-Borja; F Soria; H Poppa; K Heinemann (1989). **Image processing enhancement of high-resolution TEM micrographs of nanometer-size metal particles.** Ultramicroscopy 30(3), 405-416. [https://doi.org/10.1016/0304-3991\(89\)90071-5](https://doi.org/10.1016/0304-3991(89)90071-5)
7. P Artal (1989). **Incorporation of directional effects of the retina into computations of optical transfer functions of human eyes.** Journal of the Optical Society of America A 6(12), 1941-1944. <https://doi.org/10.1364/josaa.6.001941>
8. P Artal; J Santamaria; J Bescos (1989). **Optical-Digital Procedure For The Determination Of White-Light Retinal Images Of A Point Test.** Optical Engineering 28(6), 687-690. <https://doi.org/10.1117/12.7977021>

1990

9. P Artal (1990). **Calculations of two-dimensional foveal retinal images in real eyes.** Journal of the Optical Society of America A 7(8), 1374-1381. <https://doi.org/10.1364/josaa.7.001374>
10. C Gonzalo; J Bescós; L R Berriel-Valdós; P Artal (1990). **Optical digital implementation of the Wigner distribution function: use in space variant filtering of real images.** Applied Optics 29(17), 2569-2575. <https://doi.org/10.1364/ao.29.002569>

1991

11. P Artal Soriano; R Navarro Belsué (1991). **Las imágenes de la retina.** Política científica 30, 53-54. [Professional or general interest article]. <https://portalinvestigacion.um.es/documentos/63c0b32d3df4c204fbb01a10>

1992

12. P Artal; R Navarro (1992). **Simultaneous measurement of two-point-spread functions at different locations across the human fovea.** Applied Optics 31(19), 3646-3656. <https://doi.org/10.1364/ao.31.003646>
13. J I Prydal; P Artal; H Woon; F W Campbell (1992). **Study of human precorneal tear film thickness and structure using laser interferometry.** Investigative Ophthalmology & Visual Science 33(6), 2006-2011. <https://pubmed.ncbi.nlm.nih.gov/1582805/>

1993

14. P Artal; M Ferro; I Miranda; R Navarro (1993). **Effects of aging in retinal image quality.** Journal of the Optical Society of America A 10(7), 1656-1662. <https://doi.org/10.1364/josaa.10.001656>
15. Pablo Artal Soriano (1993). **La óptica en España a través de algunas líneas de investigación.** Política científica, 46-51. [Professional or general interest article]. <https://portalinvestigacion.um.es/documentos/63c0b34f3df4c204fbb02ce3>
16. P Artal (1993). **Method to estimate the human pupil size from the bandwidth of coherent retinal images.** Applied Optics 32(22), 4212-4217. <https://doi.org/10.1364/ao.32.004212>
17. R Navarro; M Ferro; P Artal; I Miranda (1993). **Modulation transfer functions of eyes implanted with intraocular lenses.** Applied Optics 32(31), 6359-6367. <https://doi.org/10.1364/ao.32.006359>
18. R Navarro; P Artal; D R Williams (1993). **Modulation transfer of the human eye as a function of retinal eccentricity.** Journal of the Optical Society of America A 10(2), 201-212. <https://doi.org/10.1364/josaa.10.000201>

1994

19. I Miranda; M Ferro; R Navarro; P Artal (1994). **CSF Versus MTF En la pseudofaquia.** Archivos de la Sociedad Española de Oftalmología 66(1), 11-16. <https://portalinvestigacion.um.es/documentos/609922cdc1fc724a4626fbb2>
20. P Artal; R Navarro (1994). **Monochromatic modulation transfer function of the human eye for different pupil diameters: an analytical expression.** Journal of the Optical Society of America A 11(1), 246-249. <https://doi.org/10.1364/josaa.11.000246>

1995

21. P Artal (1995). **Advances in double-pass measurements of the retinal image quality.** Optics & Photonics News, 36. https://opn-web-afd-d3bfbkd5bcc5asbs.z02.azurefd.net/opn/media/images/pdfs/12427/12427_25157_112470.pdf
22. P Artal; I Iglesias; N López-Gil; D G Green (1995). **Double-pass measurements of the retinal-image quality with unequal entrance and exit pupil sizes and the reversibility of the eye's optical system.** Journal of the Optical Society of America A 12(10), 2358-2366. <https://doi.org/10.1364/josaa.12.002358>
23. P Artal; S Marcos; R Navarro; D R Williams (1995). **Odd aberrations and double-pass measurements of retinal image quality.** Journal of the Optical Society of America A 12(2), 195-201. <https://doi.org/10.1364/josaa.12.000195>
24. P Artal; A M Derrington; E Colombo (1995). **Refraction, aliasing, and the absence of motion reversals in peripheral vision.** Vision Research 35(7), 939-947. [https://doi.org/10.1016/0042-6989\(94\)00180-t](https://doi.org/10.1016/0042-6989(94)00180-t)
25. P. Artal; S. Marcos; R. Navarro; I. Miranda; M. Ferro (1995). **Through focus image quality of eyes implanted with monofocal and multifocal intraocular lenses.** Optical Engineering 34(03), 772-779. <https://doi.org/10.1117/12.191818>

1996

26. S Marcos; R Navarro; P Artal (1996). **Coherent imaging of the cone mosaic in the living human eye.** Journal of the Optical Society of America A 13(5), 897-905. <https://doi.org/10.1364/josaa.13.000897>
27. D R Williams; P Artal; R Navarro; M J McMahon; D H Brainard (1996). **Off-axis optical quality and retinal sampling in the human eye.** Vision Research 36(8), 1103-1114. [https://doi.org/10.1016/0042-6989\(95\)00182-4](https://doi.org/10.1016/0042-6989(95)00182-4)
28. P Artal; S Marcos; I Iglesias; D G Green (1996). **Optical Modulation Transfer and Contrast Sensitivity with Decentered Small Pupils in the Human Eye.** Vision Research 36(22), 3575-3586. [https://doi.org/10.1016/0042-6989\(96\)00107-1](https://doi.org/10.1016/0042-6989(96)00107-1)

1997

29. N López-Gil; P Artal (1997). **Comparison of double-pass estimates of the retinal-image quality obtained with green and near-infrared light.** Journal of the Optical Society of America A 14(5), 961-971. <https://doi.org/10.1364/josaa.14.000961>

1998

30. P Artal; A Guirao (1998). **Contributions of the cornea and the lens to the aberrations of the human eye.** Optics Letters 23(21), 1713-1715. <https://doi.org/10.1364/ol.23.001713>
31. F Vargas-Martín; P M Prieto; P Artal (1998). **Correction of the aberrations in the human eye with a liquid-crystal spatial light modulator: limits to performance.** Journal of the Optical Society of America A 15(9), 2552-2562. <https://doi.org/10.1364/josaa.15.002552>
32. I Iglesias; E Berrio; P Artal (1998). **Estimates of the ocular wave aberration from pairs of double-pass retinal images.** Journal of the Optical Society of America A 15(9), 2466-2476. <https://doi.org/10.1364/josaa.15.002466>
33. RA Applegate; P Artal; V Lakshminarayanan (1998). **Measurement and Correction of the Optical Aberrations of the Human Eye.** Journal of the Optical Society of America A 15(9), 2446. <https://doi.org/10.1364/josaa.15.002446>
34. F Vargas-Martín; P Artal (1998). **Phasor averaging for wavefront correction with liquid crystal spatial light modulators.** Optics Communications 152(4-6), 233-238. [https://doi.org/10.1016/s0030-4018\(98\)00193-x](https://doi.org/10.1016/s0030-4018(98)00193-x)
35. I Iglesias; N López-Gil; P Artal (1998). **Reconstruction of the point-spread function of the human eye from two double-pass retinal images by phase-retrieval algorithms.** Journal of the Optical Society of America A 15(2), 326-339. <https://doi.org/10.1364/josaa.15.000326>
36. N López-Gil; I Iglesias; P Artal (1998). **Retinal image quality in the human eye as a function of the accommodation.** Vision Research 38(19), 2897-2907. [https://doi.org/10.1016/s0042-6989\(98\)00086-8](https://doi.org/10.1016/s0042-6989(98)00086-8)
37. P Artal; P Herreros de Tejada; C Muñoz Tedó; D G Green (1998). **Retinal image quality in the rodent eye.** Visual Neuroscience 15(4), 597-605. <https://doi.org/10.1017/s0952523898154020>

1999

38. A Guirao; C González; M Redondo; E Geraghty; S Norrby; P Artal (1999). **Average optical performance of the human eye as a function of age in a normal population.** Investigative Ophthalmology & Visual Science 40(1), 203-213. <https://pubmed.ncbi.nlm.nih.gov/9888445/>
39. J M Bueno; P Artal (1999). **Double-pass imaging polarimetry in the human eye.** Optics Letters 24(1), 64-66. <https://doi.org/10.1364/ol.24.000064>
40. A Guirao; P Artal (1999). **Off-axis monochromatic aberrations estimated from double pass measurements in the human eye.** Vision Research 39(2), 207-217. [https://doi.org/10.1016/s0042-6989\(98\)00159-x](https://doi.org/10.1016/s0042-6989(98)00159-x)

2000

41. P M Prieto; F Vargas-Martín; S Goelz; P Artal (2000). **Analysis of the performance of the Hartmann-Shack sensor in the human eye.** Journal of the Optical Society of America A 17(8), 1388-1398. <https://doi.org/10.1364/josaa.17.001388>
42. A Guirao; P Artal (2000). **Corneal wave aberration from videokeratography: accuracy and limitations of the procedure.** Journal of the Optical Society of America A 17(6), 955-965. <https://doi.org/10.1364/josaa.17.000955>
43. I Iglesias; P Artal (2000). **High-resolution retinal images obtained by deconvolution from wave-front sensing.** Optics Letters 25(24), 1804-1806. <https://doi.org/10.1364/ol.25.001804>
44. A Guirao; M Redondo; P Artal (2000). **Optical aberrations of the human cornea as a function of age.** Journal of the Optical Society of America A 17(10), 1697-1702. <https://doi.org/10.1364/josaa.17.001697>
45. P Artal (2000). **Understanding Aberrations By Using Double-pass Techniques.** Journal of Refractive Surgery 16(5), S560-S562. <https://doi.org/10.3928/1081-597x-20000901-13>

2001

46. E J Fernández; I Iglesias; P Artal (2001). **Closed-loop adaptive optics in the human eye.** Optics Letters 26(10), 746-748. <https://doi.org/10.1364/ol.26.000746>
47. P Artal; A Guirao; E Berrio; D R Williams (2001). **Compensation of corneal aberrations by the internal optics in the human eye.** Journal of Vision 1(1), 1. <https://doi.org/10.1167/1.1.1>
48. H Hofer; P Artal; B Singer; J L Aragón; D R Williams (2001). **Dynamics of the eye's wave aberration.** Journal of the Optical Society of America A 18(3), 497-506. <https://doi.org/10.1364/josaa.18.000497>

49. J M Bueno; P Artal (2001). **Polarization and retinal image quality estimates in the human eye.** Journal of the Optical Society of America A 18(3), 489-496. <https://doi.org/10.1364/josaa.18.000489>

2002

50. Norberto López-Gil; José Francisco Castejón-Mochón; Antonio Benito; José María Marín; George Lo-a-Foe; Gildas Marin; Bruno Fermigier; Dominique Renard; Denis Joyeux; Nicolas Château; Pablo Artal (2002). **Aberration Generation by Contact Lenses With Aspheric and Asymmetric Surfaces.** Journal of Refractive Surgery 18(5), S603-S609. <https://doi.org/10.3928/1081-597x-20020901-21>

51. EJ Fernández; S Manzanera; P Piers; P Artal (2002). **Adaptive Optics Visual Simulator.** Journal of Refractive Surgery 18(5), S634-S638. <https://doi.org/10.3928/1081-597x-20020901-27>

52. P Artal; AE Elsner; M Schneck (2002). **Aging of the Human Visual System.** Journal of the Optical Society of America A 19(1), 134. [Editorial]. <https://doi.org/10.1364/josaa.19.000134>

53. Pablo Artal; Enrique J Fernández; Silvestre Manzanera (2002). **Are Optical Aberrations During Accommodation a Significant Problem for Refractive Surgery?.** Journal of Refractive Surgery 18(5), S563-S566. <https://doi.org/10.3928/1081-597x-20020901-13>

54. Pablo Artal; Esther Berrio; Antonio Guirao; Patricia Piers (2002). **Contribution of the cornea and internal surfaces to the change of ocular aberrations with age.** Journal of the Optical Society of America A 19(1), 137-143. <https://doi.org/10.1364/josaa.19.000137>

55. A Guirao; M Redondo; E Geraghty; P Piers; S Norrby; P Artal (2002). **Corneal Optical Aberrations and Retinal Image Quality in Patients in Whom Monofocal Intraocular Lenses Were Implanted.** Archives of Ophthalmology 120(9), 1143-1151. <https://doi.org/10.1001/archophth.120.9.1143>

56. Eloy A Villegas; Concepción González; Bernard Bourdoncle; Thierry Bonnin; Pablo Artal (2002). **Correlation between Optical and Psychophysical Parameters as a Function of Defocus.** Optometry and Vision Science 79(1), 60-67. <https://doi.org/10.1002/j.1538-9235.2002.tb01409.x>

57. Ignacio Iglesias; Roberto Ragazzoni; Yves Julien; Pablo Artal (2002). **Extended source pyramid wave-front sensor for the human eye.** Optics Express 10(9), 419-428. <https://doi.org/10.1364/oe.10.000419>

58. David A Atchison; Dion H Scott; Niall C Strang; Pablo Artal (2002). **Influence of Stiles-Crawford apodization on visual acuity.** Journal of the Optical Society of America A 19(6), 1073-1083. <https://doi.org/10.1364/josaa.19.001073>

59. José Francisco Castejón-Mochón; Norberto López-Gil; Antonio Benito; Pablo Artal (2002). **Ocular wave-front aberration statistics in a normal young population.** Vision Research 42(13), 1611-1617. [https://doi.org/10.1016/s0042-6989\(02\)00085-8](https://doi.org/10.1016/s0042-6989(02)00085-8)

60. Anne Seidemann; Frank Schaeffel; Antonio Guirao; Norberto Lopez-Gil; Pablo Artal (2002). **Peripheral refractive errors in myopic, emmetropic, and hyperopic young subjects.** Journal of the Optical Society of America A 19(12), 2363-2373. <https://doi.org/10.1364/josaa.19.002363>

61. Manuel P Cagigal; Vidal F Canales; José F Castejón-Mochón; Pedro M Prieto; Norberto López-Gil; Pablo Artal (2002). **Statistical description of wave-front aberration in the human eye.** Optics Letters 27(1), 37-39. <https://doi.org/10.1364/ol.27.000037>

2003

62. Juan M Bueno; Esther Berrio; Pablo Artal (2003). **Aberro-polariscope for the human eye.** Optics Letters 28(14), 1209-1211. <https://doi.org/10.1364/ol.28.001209>

63. Pablo Artal; Li Chen; Enrique J Fernández; Ben Singer; Silvestre Manzanera; David R Williams (2003). **Adaptive Optics for Vision: The Eye's Adaptation to Point Spread Function.** Journal of Refractive Surgery 19(5), S585-S587. <https://doi.org/10.3928/1081-597x-20030901-15>

64. Enrique Fernandez; Pablo Artal (2003). **Membrane deformable mirror for adaptive optics: performance limits in visual optics.** Optics Express 11(9), 1056-1069. <https://doi.org/10.1364/oe.11.001056>

65. Pablo Artal; Antonio Guirao; Esther Berrio; Patricia Piers; Sverker Norrby (2003). **Optical Aberrations and the Aging Eye.** International Ophthalmology Clinics 43(2), 63-77. <https://doi.org/10.1097/00004397-200343020-00008>

66. Eloy A Villegas; Pablo Artal (2003). **Spatially Resolved Wavefront Aberrations of Ophthalmic Progressive-Power Lenses in Normal Viewing Conditions.** Optometry and Vision Science 80(2), 106-114. <https://doi.org/10.1002/j.1538-9235.2003.tb01601.x>

2004

67. Patricia A Piers; Enrique J Fernandez; Silvestre Manzanera; Sverker Norrby; Pablo Artal (2004). **Adaptive Optics Simulation of Intraocular Lenses with Modified Spherical Aberration**. *Investigative Ophthalmology & Visual Science* 45(12), 4601-4610. <https://doi.org/10.1167/iovs.04-0234>
68. Pedro Prieto; Enrique Fernández; Silvestre Manzanera; Pablo Artal (2004). **Adaptive optics with a programmable phase modulator: applications in the human eye**. *Optics Express* 12(17), 4059-4071. <https://doi.org/10.1364/ope.12.004059>
69. B Hermann; E J Fernández; A Unterhuber; H Sattmann; A F Fercher; W Drexler; P M Prieto; P Artal (2004). **Adaptive-optics ultrahigh-resolution optical coherence tomography**. *Optics Letters* 29(18), 2142-2144. <https://doi.org/10.1364/ol.29.002142>
70. Eloy A Villegas; Pablo Artal (2004). **Comparison of aberrations in different types of progressive power lenses**. *Ophthalmic and Physiological Optics* 24(5), 419-426. <https://doi.org/10.1111/j.1475-1313.2004.00214.x>
71. Antonio Guirao; Jaime Tejedor; Pablo Artal (2004). **Corneal Aberrations before and after Small-Incision Cataract Surgery**. *Investigative Ophthalmology & Visual Science* 45(12), 4312-4319. <https://doi.org/10.1167/iovs.04-0693>
72. Juan M Bueno; Esther Berrio; Maris Ozolinsh; Pablo Artal (2004). **Degree of polarization as an objective method of estimating scattering**. *Journal of the Optical Society of America A* 21(7), 1316-1321. <https://doi.org/10.1364/josaa.21.001316>
73. Brian Vohnsen; Ignacio Iglesias; Pablo Artal (2004). **Directional imaging of the retinal cone mosaic**. *Optics Letters* 29(9), 968-970. <https://doi.org/10.1364/ol.29.000968>
74. P Artal; DR Williams (2004). **Introduction to the Special issue on "Optics in Vision"**. *Journal of Vision* 4(4), i. [Editorial]. <https://doi.org/10.1167/4.4.i>
75. Pablo Artal; Li Chen; Enrique J Fernández; Ben Singer; Silvestre Manzanera; David R Williams (2004). **Neural compensation for the eye's optical aberrations**. *Journal of Vision* 4(4), 4. <https://doi.org/10.1167/4.4.4>
76. JL Güell; J Pujol; M Arjona; F Diaz-Douton; P Artal (2004). **Optical Quality Analysis System: instrument for objective clinical evaluation of ocular optical quality**. *Journal of Cataract & Refractive Surgery* 30(7), 1598-1599. <https://doi.org/10.1016/j.jcrs.2004.04.031>

2005

77. V Nourrit; B Vohnsen; P Artal (2005). **Blind deconvolution for high-resolution confocal scanning laser ophthalmoscopy**. *Journal of Optics A: Pure and Applied Optics* 7(10), 585-592. <https://doi.org/10.1088/1464-4258/7/10/010>
78. Brian Vohnsen; Ignacio Iglesias; Pablo Artal (2005). **Directional light scanning laser ophthalmoscope**. *Journal of the Optical Society of America A* 22(12), 2606-2612. <https://doi.org/10.1364/josaa.22.002606>
79. Brian Vohnsen; Ignacio Iglesias; Pablo Artal (2005). **Guided light and diffraction model of human-eye photoreceptors**. *Journal of the Optical Society of America A* 22(11), 2318-2328. <https://doi.org/10.1364/josaa.22.002318>
80. Enrique Fernández; Angelika Unterhuber; Pedro Prieto; Boris Hermann; Wolfgang Drexler; Pablo Artal (2005). **Ocular aberrations as a function of wavelength in the near infrared measured with a femtosecond laser**. *Optics Express* 13(2), 400-409. <https://doi.org/10.1364/ope.13.000400>
81. Enrique J Fernández; Pablo Artal (2005). **Study on the effects of monochromatic aberrations in the accommodation response by using adaptive optics**. *Journal of the Optical Society of America A* 22(9), 1732-1738. <https://doi.org/10.1364/josaa.22.001732>
82. Enrique J Fernández; Boris Povazay; Boris Hermann; Angelika Unterhuber; Harald Sattmann; Pedro M Prieto; Rainer Leitgeb; Peter Ahnelt; Pablo Artal; Wolfgang Drexler (2005). **Three-dimensional adaptive optics ultrahigh-resolution optical coherence tomography using a liquid crystal spatial light modulator**. *Vision Research* 45(28), 3432-3444. <https://doi.org/10.1016/j.visres.2005.08.028>

2006

83. Ralf Blendowske; Eloy A Villegas; Pablo Artal (2006). **An Analytical Model Describing Aberrations in the Progression Corridor of Progressive Addition Lenses**. *Optometry and Vision Science* 83(9), 666-671. <https://doi.org/10.1097/01.opx.0000232827.99741.66>
84. Enrique J Fernández; Angelika Unterhuber; Boris Povazay; Boris Hermann; Pablo Artal; Wolfgang Drexler (2006). **Chromatic aberration correction of the human eye for retinal imaging in the near infrared**. *Optics Express* 14(13), 6213-6225. <https://doi.org/10.1364/oe.14.006213>

85. Fernando Díaz-Doutón; Antonio Benito; Jaume Pujol; Montserrat Arjona; José Luis Güell; Pablo Artal (2006). **Comparison of the Retinal Image Quality with a Hartmann-Shack Wavefront Sensor and a Double-Pass Instrument.** Investigative Ophthalmology & Visual Science 47(4), 1710-1716. <https://doi.org/10.1167/iovs.05-1049>
86. Juan M Bueno; Esther Berrio; Pablo Artal (2006). **Corneal polarimetry after LASIK refractive surgery.** Journal of Biomedical Optics 11(01), 014001. <https://doi.org/10.1117/1.2154747>
87. Juan Tabernero; Antonio Benito; Vincent Nourrit; Pablo Artal (2006). **Instrument for measuring the misalignments of ocular surfaces.** Optics Express 14(22), 10945-10956. <https://doi.org/10.1364/oe.14.010945>
88. P. Artal; J. Bueno; I. Iglesias; P. Prieto; E. Berrio; E. Villegas; A. Benito; E. Fernández; B. Vohnsen; S. Manzanera; G. Pérez; J. Tabernero; E. Alcón; D. Ayala; C. Cánovas; N. Gorceix; A. Mira (2006). **Investigación en el Laboratorio de Óptica de la Universidad de Murcia (LO-UM).** Óptica Pura y Aplicada 39(3), 287-292. https://sedoptica.es/Menu_Volumenes/Pdfs/220.pdf
89. S Marcos; P Artal; J Santamaría; M Aguilar; L Plaza (2006). **Investigación en Optica Fisiologica en España: Un repaso a los orígenes.** Óptica Pura y Aplicada 39(3), 189-197. <https://portalinvestigacion.um.es/documentos/63c0b35c3df4c204fbb0343a>
90. Juan Tabernero; Patricia Piers; Antonio Benito; Manuel Redondo; Pablo Artal (2006). **Predicting the Optical Performance of Eyes Implanted with IOLs to Correct Spherical Aberration.** Investigative Ophthalmology & Visual Science 47(10), 4651-4658. <https://doi.org/10.1167/iovs.06-0444>
91. Pablo Artal; Antonio Benito; Juan Tabernero (2006). **The human eye is an example of robust optical design.** Journal of Vision 6(1), 1. <https://doi.org/10.1167/6.1.1>
92. Slawomir Drobczynski; Juan M Bueno; Pablo Artal; Henryk Kasprzak (2006). **Transmission imaging polarimetry for a linear birefringent medium using a carrier fringe method.** Applied Optics 45(22), 5489-5496. <https://doi.org/10.1364/ao.45.005489>
93. Eloy A Villegas; Pablo Artal (2006). **Visual Acuity and Optical Parameters in Progressive-Power Lenses.** Optometry and Vision Science 83(9), 672-681. <https://doi.org/10.1097/01.opx.0000232818.37832.ee>

2007

94. J Tabernero; P Artal (2007). **A New Intraocular Lens to Correct Corneal Coma.** Optics and Photonics News 18(12), 48. [Professional or general interest article]. <https://doi.org/10.1364/opn.18.12.000048>
95. Enrique J Fernández; Pablo Artal (2007). **Dynamic eye model for adaptive optics testing.** Applied Optics 46(28), 6971-6977. <https://doi.org/10.1364/ao.46.006971>
96. Linda Lundström; Silvestre Manzanera; Pedro M Prieto; Diego B Ayala; Nicolas Gorceix; Jörgen Gustafsson; Peter Unsbo; Pablo Artal (2007). **Effect of optical correction and remaining aberrations on peripheral resolution acuity in the human eye.** Optics Express 15(20), 12654-12661. <https://doi.org/10.1364/oe.15.012654>
97. Juan Tabernero; Stephen D Klyce; Edwin J Sarver; Pablo Artal (2007). **Functional Optical Zone of the Cornea.** Investigative Ophthalmology & Visual Science 48(3), 1053-1060. <https://doi.org/10.1167/iovs.06-0867>
98. Juan Tabernero; Patricia Piers; Pablo Artal (2007). **Intraocular lens to correct corneal coma.** Optics Letters 32(4), 406-408. <https://doi.org/10.1364/ol.32.000406>
99. Silvestre Manzanera; Pedro M Prieto; Diego B Ayala; Joseph M Lindacher; Pablo Artal (2007). **Liquid crystal Adaptive Optics Visual Simulator: Application to testing and design of ophthalmic optical elements.** Optics Express 15(24), 16177-16188. <https://doi.org/10.1364/oe.15.016177>
100. Juan Tabernero; Antonio Benito; Encarna Alcón; Pablo Artal (2007). **Mechanism of compensation of aberrations in the human eye.** Journal of the Optical Society of America A 24(10), 3274-3283. <https://doi.org/10.1364/josaa.24.003274>
101. Li Chen; Pablo Artal; Denise Gutierrez; David R Williams (2007). **Neural compensation for the best aberration correction.** Journal of Vision 7(10), 9. <https://doi.org/10.1167/7.10.9>
102. Juan M Bueno; Dirk De Brouwere; Harilaos Ginis; Ioannis Sgouros; Pablo Artal (2007). **Purkinje imaging system to measure anterior segment scattering in the human eye.** Optics Letters 32(23), 3447-3449. <https://doi.org/10.1364/ol.32.003447>
103. J Tabernero; P Artal (2007). **Surface reflections reveal hidden eye misalignments.** Laser focus world 43(6), 133-135. <https://portalinvestigacion.um.es/documentos/63a75c6b9ac45918ff200a91>
104. Patricia A Piers; Henk A Weeber; Pablo Artal; Sverker Norrby (2007). **Theoretical Comparison of Aberration-correcting Customized and Aspheric Intraocular Lenses.** Journal of Refractive Surgery 23(4), 374-384. <https://doi.org/10.3928/1081-597x-20070401-10>

105. Patricia A Piers; Silvestre Manzanera; Pedro M Prieto; Nicolas Gorceix; Pablo Artal (2007). **Use of adaptive optics to determine the optimal ocular spherical aberration.** Journal of Cataract and Refractive Surgery 33(10), 1721-1726. <https://doi.org/10.1016/j.jcrs.2007.08.001>
106. Susana Marcos; Pablo Artal (2007). **Visual optics research in Spain: A historical perspective.** Optics & Photonics News 18(9), 22-23. https://opn-web-afd-d3bfbkd5bcc5asbs.z02.azurefd.net/opn/media/images/pdfs/10871/10871_22053_109360.pdf
107. Yael Benny; Silvestre Manzanera; Pedro M Prieto; Erez N Ribak; Pablo Artal (2007). **Wide-angle chromatic aberration corrector for the human eye.** Journal of the Optical Society of America A 24(6), 1538-1544. <https://doi.org/10.1364/josaa.24.001538>

2008

108. Silvestre Manzanera; Carmen Canovas; Pedro M Prieto; Pablo Artal (2008). **A wavelength tunable wavefront sensor for the human eye.** Optics Express 16(11), 7748-7755. <https://doi.org/10.1364/oe.16.007748>
109. JM Bueno; P Artal (2008). **Average double-pass ocular diattenuation using foveal fixation.** Journal of Modern Optics 55(4-5), 849-859. <https://doi.org/10.1080/09500340701467850>
110. Vincent Nourrit; Juan M Bueno; Brian Vohnsen; Pablo Artal (2008). **Nonlinear registration for scanned retinal images: application to ocular polarimetry.** Applied Optics 47(29), 5341-5347. <https://doi.org/10.1364/ao.47.005341>
111. Enrique J Fernández; Pablo Artal (2008). **Ocular aberrations up to the infrared range: from 632.8 to 1070 nm.** Optics Express 16(26), 21199-21208. <https://doi.org/10.1364/oe.16.021199>
112. Eloy A Villegas; Encarna Alcón; Pablo Artal (2008). **Optical Quality of the Eye in Subjects with Normal and Excellent Visual Acuity.** Investigative Ophthalmology & Visual Science 49(10), 4688-4696. <https://doi.org/10.1167/iovs.08-2316>
113. B Vohnsen; P Artal (2008). **Second-harmonic microscopy of ex vivo porcine corneas.** Journal of Microscopy 232(1), 158-163. <https://doi.org/10.1111/j.1365-2818.2008.02086.x>
114. P Artal; J Tabernero (2008). **The eye's aplanatic answer.** Nature Photonics 2(10), 586-589. <https://doi.org/10.1038/nphoton.2008.187>

2009

115. Enrique J Fernández; Pedro M Prieto; Pablo Artal (2009). **Binocular adaptive optics visual simulator.** Optics Letters 34(17), 2628-2630. <https://doi.org/10.1364/ol.34.002628>
116. P Prado; J Arines; S Bará; S Manzanera; A Mira-Agudelo; P Artal (2009). **Changes of ocular aberrations with gaze.** Ophthalmic and Physiological Optics 29(3), 264-271. <https://doi.org/10.1111/j.1475-1313.2009.00652.x>
117. Pablo Artal (2009). **History of IOLs that correct spherical aberration.** Journal of Cataract and Refractive Surgery 35(6), 962-963. <https://doi.org/10.1016/j.jcrs.2009.02.023>
118. Guillermo M Pérez; Silvestre Manzanera; Pablo Artal (2009). **Impact of scattering and spherical aberration in contrast sensitivity.** Journal of Vision 9(3), 19. <https://doi.org/10.1167/9.3.19>
119. Antonio Benito; Manuel Redondo; Pablo Artal (2009). **Laser In Situ Keratomileusis Disrupts the Aberration Compensation Mechanism of the Human Eye.** American Journal of Ophthalmology 147(3), 424-431.e1. <https://doi.org/10.1016/j.ajo.2008.09.027>
120. P Artal (2009). **Light adjustable lenses provide tailor-made refraction.** Ophthalmology Times. [Professional or general interest article]. https://scholar.google.es/citations?view_op=view_citation&hl=en&user=L2qYVBgAAAAJ&citation_for_view=L2qYVBgAAAAJ:umqufdRvDiIC
121. Meritxell Vilaseca; Adenay Padilla; Jaume Pujol; Juan C Ondategui; Pablo Artal; Jose L Güell (2009). **Optical Quality One Month After Verisyse and Veriflex Phakic IOL Implantation and Zeiss MEL 80 LASIK for Myopia From 5.00 to 16.50 Diopters.** Journal of Refractive Surgery 25(8), 689-698. <https://doi.org/10.3928/1081597x-20090707-03>
122. Linda Lundström; Alejandro Mira-Agudelo; Pablo Artal (2009). **Peripheral optical errors and their change with accommodation differ between emmetropic and myopic eyes.** Journal of Vision 9(6), 17. <https://doi.org/10.1167/9.6.17>
123. A Mira-Agudelo; L Lundström; P Artal (2009). **Temporal dynamics of ocular aberrations: monocular vs binocular vision.** Ophthalmic and Physiological Optics 29(3), 256-263. <https://doi.org/10.1111/j.1475-1313.2009.00655.x>
124. Juan M Bueno; Brian Vohnsen; Luis Roso; Pablo Artal (2009). **Temporal wavefront stability of an ultrafast high-power laser beam.** Applied Optics 48(4), 770-777. <https://doi.org/10.1364/ao.48.000770>

125. Enrique J Fernández; Pedro M Prieto; Pablo Artal (2009). **Wave-aberration control with a liquid crystal on silicon (LCOS) spatial phase modulator**. Optics Express 17(13), 11013-11025. <https://doi.org/10.1364/oe.17.011013>

2010

126. Enrique J Fernández; Pedro M Prieto; Pablo Artal (2010). **Adaptive optics binocular visual simulator to study stereopsis in the presence of aberrations**. Journal of the Optical Society of America A 27(11), A48-A55. <https://doi.org/10.1364/josaa.27.000a48>

127. Juan M Bueno; Emilio J Gualda; Pablo Artal (2010). **Adaptive optics multiphoton microscopy to study ex vivo ocular tissues**. Journal of Biomedical Optics 15(06), 066004. <https://doi.org/10.1117/1.3505018>

128. Guillermo M Pérez; Salomé Abenza; Alvaro De Casas; Jose M Marín; Pablo Artal (2010). **Cause of Monocular Diplopia Diagnosed by Combining Double-pass Retinal Image Assessment and Hartmann-Shack Aberrometry**. Journal of Refractive Surgery 26(4), 301-304. <https://doi.org/10.3928/1081597x-20100218-05>

129. Carmen Cánovas; Pedro M Prieto; Silvestre Manzanera; Alejandro Mira; Pablo Artal (2010). **Hybrid adaptive-optics visual simulator**. Optics Letters 35(2), 196-198. <https://doi.org/10.1364/ol.35.000196>

130. JM Bueno; EJ Gualda; P Artal (2010). **Microscopía a dos fotones de tejidos biológicos**. Óptica pura y aplicada 43(1), 9-15. <https://portalinvestigacion.um.es/documentos/63c0b35c3df4c204fbb03434>

131. Esther Berrio; Juan Tabernero; Pablo Artal (2010). **Optical aberrations and alignment of the eye with age**. Journal of Vision 10(14), 34. <https://doi.org/10.1167/10.14.34>

132. Guillermo M Pérez; Steven M Archer; Pablo Artal (2010). **Optical Characterization of Bangerter Foils**. Investigative Ophthalmology & Visual Science 51(1), 609-613. <https://doi.org/10.1167/iovs.09-3726>

133. Pablo Artal; Juan Tabernero (2010). **Optics of human eye: 400 years of exploration from Galileo's time**. Applied Optics 49(16), D123-D130. <https://doi.org/10.1364/ao.49.00d123>

134. Eva Acosta; Juan M Bueno; Christina Schwarz; Pablo Artal (2010). **Relationship between wave aberrations and histological features in ex vivo porcine crystalline lenses**. Journal of Biomedical Optics 15(05), 055001. <https://doi.org/10.1117/1.3484259>

135. Yutaro Nishi; Nino Hirschall; Alja Crnej; Vinod Gangwani; Juan Tabernero; Pablo Artal; Oliver Findl (2010). **Reproducibility of intraocular lens decentration and tilt measurement using a clinical Purkinje meter**. Journal of Cataract and Refractive Surgery 36(9), 1529-1535. <https://doi.org/10.1016/j.jcrs.2010.03.043>

136. Pablo Artal; Silvestre Manzanera; Patricia Piers; Henk Weeber (2010). **Visual effect of the combined correction of spherical and longitudinal chromatic aberrations**. Optics Express 18(2), 1637-1648. <https://doi.org/10.1364/oe.18.001637>

137. Juan M Bueno; Eva Acosta; Christina Schwarz; Pablo Artal (2010). **Wavefront measurements of phase plates combining a point-diffraction interferometer and a Hartmann-Shack sensor**. Applied Optics 49(3), 450-456. <https://doi.org/10.1364/ao.49.000450>

138. Emilio J Gualda; Juan M Bueno; Pablo Artal (2010). **Wavefront optimized nonlinear microscopy of ex vivo human retinas**. Journal of Biomedical Optics 15(02), 026007. <https://doi.org/10.1117/1.3369001>

2011

139. Vincent Soler; Antonio Benito; Pauline Soler; Claire Triozon; Jean-Louis Arné; Virginie Madariaga; Pablo Artal; François Malecaze (2011). **A Randomized Comparison of Pupil-Centered Versus Vertex-Centered Ablation in LASIK Correction of Hyperopia**. American Journal of Ophthalmology 152(4), 591-599.e2. <https://doi.org/10.1016/j.ajo.2011.03.034>

140. Pablo Artal; Antonio Benito; Guillermo M Pérez; Encarna Alcón; Alvaro De Casas; Jaume Pujol; José M Marín (2011). **An Objective Scatter Index Based on Double-Pass Retinal Images of a Point Source to Classify Cataracts**. PLoS ONE 6(2), e16823. <https://doi.org/10.1371/journal.pone.0016823>

141. Juan M Bueno; Emilio J Gualda; Pablo Artal (2011). **Analysis of Corneal Stroma Organization With Wavefront Optimized Nonlinear Microscopy**. Cornea 30(6), 692-701. <https://doi.org/10.1097/ico.0b013e3182000f94>

142. Juan M Bueno; Anastasia Giakoumaki; Emilio J Gualda; Frank Schaeffel; Pablo Artal (2011). **Analysis of the chicken retina with an adaptive optics multiphoton microscope**. Biomedical Optics Express 2(6), 1637-1648. <https://doi.org/10.1364/boe.2.001637>

143. Christina Schwarz; Pedro M Prieto; Enrique J Fernández; Pablo Artal (2011). **Binocular adaptive optics vision analyzer with full control over the complex pupil functions**. Optics Letters 36(24), 4779-4781. <https://doi.org/10.1364/ol.36.004779>

144. Juan Tabernero; Christina Schwarz; Enrique J Fernández; Pablo Artal (2011). **Binocular Visual Simulation of a Corneal Inlay to Increase Depth of Focus**. *Investigative Ophthalmology & Visual Science* 52(8), 5273-5277. <https://doi.org/10.1167/iov.10-6436>
145. Carmen Canovas; Pablo Artal (2011). **Customized eye models for determining optimized intraocular lenses power**. *Biomedical Optics Express* 2(6), 1649-1662. <https://doi.org/10.1364/boe.2.001649>
146. Bart Jaeken; Linda Lundström; Pablo Artal (2011). **Fast scanning peripheral wave-front sensor for the human eye**. *Optics Express* 19(8), 7903-7913. <https://doi.org/10.1364/oe.19.007903>
147. Emilio J Gualda; Javier R Vázquez de Aldana; M Carmen Martínez-García; Pablo Moreno; Juan Hernández-Toro; Luis Roso; Pablo Artal; Juan M Bueno (2011). **Femtosecond infrared intrastromal ablation and backscattering-mode adaptive-optics multiphoton microscopy in chicken corneas**. *Biomedical Optics Express* 2(11), 2950-2960. <https://doi.org/10.1364/boe.2.002950>
148. Alja Crnej; Nino Hirnschall; Yutaro Nishi; Vinod Gangwani; Juan Tabernero; Pablo Artal; Oliver Findl (2011). **Impact of intraocular lens haptic design and orientation on decentration and tilt**. *Journal of Cataract and Refractive Surgery* 37(10), 1768-1774. <https://doi.org/10.1016/j.jcrs.2011.04.028>
149. J Tabernero; E Berrio; P Artal (2011). **Modeling the mechanism of compensation of aberrations in the human eye for accommodation and aging**. *Journal of the Optical Society of America A* 28(9), 1889-1895. <https://doi.org/10.1364/josaa.28.001889>
150. Juan M Bueno; Emilio J Gualda; Anastasia Giakoumaki; Pablo Pérez-Merino; Susana Marcos; Pablo Artal (2011). **Multiphoton Microscopy of Ex Vivo Corneas after Collagen Cross-Linking**. *Investigative Ophthalmology & Visual Science* 52(8), 5325-5331. <https://doi.org/10.1167/iov.11-7184>
151. Elena Tarutta; Wei-han Chua; Terri Young; Ernst Goldschmidt; Seang-Mei Saw; Kathryn A. Rose; Earl Smith; Donald O. Mutti; Regan Ashby; Richard A. Stone; Christine Wildsoet; Howard C. Howland; Andy J. Fischer; William K. Stell; Andreas Reichenbach; Michael Frost; Alex Gentle; Xiaoying Zhu; Jody Summers-Rada; Veluchamy Barathi; Liqin Jiang; Sally McFadden; Jeremy A. Guggenheim; Chris Hammond; Ruth Schippert; Chi-Ho To; Jane Gwiazda; Susana Marcos; Michael Collins; W. Neil Charman; Pablo Artal; Juan Tabernero; David A. Atchison; Anne Seidemann; Dietmar Uttenweiler; David Troilo; Thomas T. Norton; Josh Wallman (2011). **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?**. *Optometry and Vision Science* 88(3), 404-447. [Review or perspective]. <https://doi.org/10.1097/oxp.0b013e31820e6a6a>
152. Antonio Benito; Guillermo M Pérez; Sandra Mirabet; Meritxell Vilaseca; Jaume Pujol; José M Marín; Pablo Artal (2011). **Objective optical assessment of tear-film quality dynamics in normal and mildly symptomatic dry eyes**. *Journal of Cataract and Refractive Surgery* 37(8), 1481-1487. <https://doi.org/10.1016/j.jcrs.2011.03.036>
153. B Jaeken; L Lundström; P Artal (2011). **Peripheral aberrations in the human eye for different wavelengths: off-axis chromatic aberration**. *Journal of the Optical Society of America A* 28(9), 1871-1879. <https://doi.org/10.1364/josaa.28.001871>
154. L. Lundström; R. Rosén; K. Baskaran; B. Jaeken; J. Gustafsson; P. Artal; P. Unsbo (2011). **Symmetries in peripheral ocular aberrations**. *Journal of Modern Optics* 58(19-20), 1690-1695. <https://doi.org/10.1080/09500340.2011.564317>
155. Antonio Benito; Manuel Redondo; Pablo Artal (2011). **Temporal evolution of ocular aberrations following laser in situ keratomileusis**. *Ophthalmic and Physiological Optics* 31(4), 421-428. <https://doi.org/10.1111/j.1475-1313.2011.00854.x>

2012

156. Pablo Artal (2012). **Comment on "Measurement and correction of transverse chromatic offsets for multi-wavelength retinal microscopy in the living eye"**. *Biomedical Optics Express* 3(11), 2772-2773. <https://doi.org/10.1364/boe.3.002772>
157. Bart Jaeken; Juan Tabernero; Frank Schaeffel; Pablo Artal (2012). **Comparison of two scanning instruments to measure peripheral refraction in the human eye**. *Journal of the Optical Society of America A* 29(3), 258-264. <https://doi.org/10.1364/josaa.29.000258>
158. H Ginis; GM Pérez; JM Bueno; P Artal (2012). **Corrections to: The wide-angle point spread function of the human eye reconstructed by a new optical method**. *Journal of Vision* 12(4), 15. [Correction]. <https://doi.org/10.1167/12.4.15>
159. Carmen Canovas; Salome Abenza; Encarna Alcon; Eloy A Villegas; Jose M Marin; Pablo Artal (2012). **Effect of corneal aberrations on intraocular lens power calculations**. *Journal of Cataract and Refractive Surgery* 38(8), 1325-1332. <https://doi.org/10.1016/j.jcrs.2012.03.033>
160. Robert Rosén; Bart Jaeken; Anna Lindskoog Petterson; Pablo Artal; Peter Unsbo; Linda Lundström (2012). **Evaluating the peripheral optical effect of multifocal contact lenses**. *Ophthalmic and Physiological Optics* 32(6), 527-534. <https://doi.org/10.1111/j.1475-1313.2012.00937.x>

161. Meritxell Vilaseca; Maria José Romero; Montserrat Arjona; Sergio Oscar Luque; Juan Carlos Ondategui; Antoni Salvador; José L Güell; Pablo Artal; Jaume Pujol (2012). **Grading nuclear, cortical and posterior subcapsular cataracts using an objective scatter index measured with a double-pass system.** British Journal of Ophthalmology 96(9), 1204-1210.
<https://doi.org/10.1136/bjophthalmol-2011-301055>
162. Eloy A Villegas; Encarna Alcón; Pablo Artal (2012). **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 29(8), 1667-1672.
<https://doi.org/10.1364/josaa.29.001667>
163. Pablo Artal (2012). **Lessons from an editorial term.** Optics and Photonics News 23(7-8), 12-13. [Editorial].
<https://portalinvestigacion.um.es/documentos/63a75cff9ac45918ff203466>
164. Pablo Artal; Christina Schwarz; Carmen Cánovas; Alejandro Mira-Agudelo (2012). **Night Myopia Studied with an Adaptive Optics Visual Analyzer.** PLoS ONE 7(7), e40239. <https://doi.org/10.1371/journal.pone.0040239>
165. Juan Tabernero; Pablo Artal (2012). **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 38(2), 270-277.
<https://doi.org/10.1016/j.jcrs.2011.07.040>
166. Bart Jaeken; Pablo Artal (2012). **Optical Quality of Emmetropic and Myopic Eyes in the Periphery Measured with High-Angular Resolution.** Investigative Ophthalmology & Visual Science 53(7), 3405-3413. <https://doi.org/10.1167/iovs.11-8993>
167. Vincent Soler; Antonio Benito; Pauline Soler; Claire Triozon; Jean-Louis Arné; Virginie Madariaga; Pablo Artal; François Malecaze (2012). **Reply [A randomized comparison of pupil-centered versus vertex-centered ablation in LASIK correction of hyperopia].** American Journal of Ophthalmology 153(4), 776-777. [Letter or commentary].
<https://doi.org/10.1016/j.ajo.2011.12.009>
168. Pablo Artal (2012). **Small-aperture contact lenses are not surrogates for corneal inlays.** Journal of Cataract and Refractive Surgery 38(11), 2061-2062. [Letter or commentary]. <https://doi.org/10.1016/j.jcrs.2012.08.040>
169. Harilaos Ginis; Guillermo M Pérez; Juan M Bueno; Pablo Artal (2012). **The wide-angle point spread function of the human eye reconstructed by a new optical method.** Journal of Vision 12(3), 20. <https://doi.org/10.1167/12.3.20>

2013

170. Bart Jaeken; Sandra Mirabet; José María Marín; Pablo Artal (2013). **Comparison of the Optical Image Quality in the Periphery of Phakic and Pseudophakic Eyes.** Investigative Ophthalmology & Visual Science 54(5), 3594-3599.
<https://doi.org/10.1167/iovs.13-11956>
171. Enrique J Fernández; Christina Schwarz; Pedro M Prieto; Silvestre Manzanera; Pablo Artal (2013). **Impact on stereo-acuity of two presbyopia correction approaches: monovision and small aperture inlay.** Biomedical Optics Express 4(6), 822-830.
<https://doi.org/10.1364/boe.4.000822>
172. Juan M Bueno; Martin Skorsetz; Raquel Palacios; Emilio J Gualda; Pablo Artal (2013). **Multiphoton imaging microscopy at deeper layers with adaptive optics control of spherical aberration.** Journal of Biomedical Optics 19(01), 011007.
<https://doi.org/10.1117/1.jbo.19.1.011007>
173. Harilaos S Ginis; Guillermo M Perez; Juan M Bueno; Alexandros Pennos; Pablo Artal (2013). **Wavelength Dependence of the Ocular Straylight.** Investigative Ophthalmology & Visual Science 54(5), 3702-3708. <https://doi.org/10.1167/iovs.13-11697>

2014

174. Emmanuel Chirre; Pedro M Prieto; Pablo Artal (2014). **Binocular open-view instrument to measure aberrations and pupillary dynamics.** Optics Letters 39(16), 4773-4775. <https://doi.org/10.1364/ol.39.004773>
175. Christina Schwarz; Carmen Cánovas; Silvestre Manzanera; Henk Weeber; Pedro M Prieto; Patricia Piers; Pablo Artal (2014). **Binocular visual acuity for the correction of spherical aberration in polychromatic and monochromatic light.** Journal of Vision 14(2), 8. <https://doi.org/10.1167/14.2.8>
176. Christina Schwarz; Silvestre Manzanera; Pablo Artal (2014). **Binocular visual performance with aberration correction as a function of light level.** Journal of Vision 14(14), 6. <https://doi.org/10.1167/14.14.6>
177. Harilaos Ginis; Onurcan Sahin; Alexandros Pennos; Pablo Artal (2014). **Compact optical integration instrument to measure intraocular straylight.** Biomedical Optics Express 5(9), 3036-3041. <https://doi.org/10.1364/boe.5.003036>
178. Christina Schwarz; Silvestre Manzanera; Pedro M Prieto; Enrique J Fernández; Pablo Artal (2014). **Comparison of binocular through-focus visual acuity with monovision and a small aperture inlay.** Biomedical Optics Express 5(10), 3355-3366.
<https://doi.org/10.1364/boe.5.003355>

179. Eloy A Villegas; Encarna Alcón; Sandra Mirabet; Inés Yago; José María Marín; Pablo Artal (2014). **Extended Depth of Focus With Induced Spherical Aberration in Light-Adjustable Intraocular Lenses.** American Journal of Ophthalmology 157(1), 142-149. <https://doi.org/10.1016/j.ajo.2013.08.009>
180. Juan Tabernero; Pablo Artal (2014). **Lens Oscillations in the Human Eye. Implications for Post-Saccadic Suppression of Vision.** PLoS ONE 9(4), e95764. <https://doi.org/10.1371/journal.pone.0095764>
181. Eloy A Villegas; Encarna Alcón; Pablo Artal (2014). **Minimum amount of astigmatism that should be corrected.** Journal of Cataract and Refractive Surgery 40(1), 13-19. <https://doi.org/10.1016/j.jcrs.2013.09.010>
182. P Artal (2014). **Optics of the eye and its impact in vision: a tutorial.** Advances in Optics and Photonics 6(3), 340-367. [Review or perspective]. <https://doi.org/10.1364/aop.6.000340>
183. Eloy A Villegas; Encarna Alcon; Elena Rubio; José M Marín; Pablo Artal (2014). **Refractive accuracy with light-adjustable intraocular lenses.** Journal of Cataract and Refractive Surgery 40(7), 1075-1084. <https://doi.org/10.1016/j.jcrs.2013.10.046>
184. Juan M Bueno; Raquel Palacios; Anastasia Giakoumaki; Emilio J Gualda; Frank Schaeffel; Pablo Artal (2014). **Retinal cell imaging in myopic chickens using adaptive optics multiphoton microscopy.** Biomedical Optics Express 5(3), 664-674. <https://doi.org/10.1364/boe.5.000664>

2015

185. Juan Tabernero; Muhammad A Qureshi; Scott J Robbie; Pablo Artal (2015). **An aspheric intraocular telescope for age-related macular degeneration patients.** Biomedical Optics Express 6(3), 1010-1020. <https://doi.org/10.1364/boe.6.001010>
186. Emmanuel Chirre; Pedro Prieto; Pablo Artal (2015). **Dynamics of the near response under natural viewing conditions with an open-view sensor.** Biomedical Optics Express 6(10), 4200-4211. <https://doi.org/10.1364/boe.6.004200>
187. Carmen Canovas; Marrie van der Mooren; Robert Rosén; Patricia A Piers; Li Wang; Douglas D Koch; Pablo Artal (2015). **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 41(5), 1030-1037. <https://doi.org/10.1016/j.jcrs.2014.07.044>
188. Pablo Artal (2015). **Image Formation in the Living Human Eye.** Annual Review of Vision Science 1(1), 1-17. [Review or perspective]. <https://doi.org/10.1146/annurev-vision-082114-035905>
189. Juan M Bueno; Guillermo Pérez; Antonio Benito; Pablo Artal (2015). **Impact of scatter on double-pass image quality and contrast sensitivity measured with a single instrument.** Biomedical Optics Express 6(12), 4841-4849. <https://doi.org/10.1364/boe.6.004841>
190. Fritz H Hengerer; Pablo Artal; Thomas Kohnen; Ina Conrad-Hengerer (2015). **Initial Clinical Results of a New Telescopic IOL Implanted in Patients With Dry Age-Related Macular Degeneration.** Journal of Refractive Surgery 31(3), 158-162. <https://doi.org/10.3928/1081597x-20150220-03>
191. Muhammad A Qureshi; Scott J Robbie; Juan Tabernero; Pablo Artal (2015). **Injectable intraocular telescope: Pilot study.** Journal of Cataract and Refractive Surgery 41(10), 2125-2135. <https://doi.org/10.1016/j.jcrs.2015.03.021>
192. P Artal (2015). **Light-adjustable lens addresses challenges of refractive targets: adaptive optics with lens aims to provide best customization for patients with cataracts.** Ophthalmology Times 40(6), 34-36. [Professional or general interest article]. https://scholar.google.es/citations?view_op=view_citation&hl=en&user=L2qYVBgAAAAJ&citation_for_view=L2qYVBgAAAAJ:041faMmbr2QC
193. Silvestre Manzanera; Pedro M Prieto; Antonio Benito; Juan Tabernero; Pablo Artal (2015). **Location of Achromatizing Pupil Position and First Purkinje Reflection in a Normal Population.** Investigative Ophthalmology & Visual Science 56(2), 962-966. <https://doi.org/10.1167/iovs.14-16108>
194. Benjamin Leray; Myriam Cassagne; Vincent Soler; Eloy A Villegas; Claire Triozon; Guillermo M Perez; Jonathan Letsch; Eric Chapotot; Pablo Artal; François Malecaze (2015). **Relationship between Induced Spherical Aberration and Depth of Focus after Hyperopic LASIK in Presbyopic Patients.** Ophthalmology 122(2), 233-243. <https://doi.org/10.1016/j.ophtha.2014.08.021>
195. Juan M Bueno; Raquel Palacios; Alexandros Pennos; Pablo Artal (2015). **Second-harmonic generation microscopy of photocurable polymer intrastromal implants in ex-vivo corneas.** Biomedical Optics Express 6(6), 2211-2219. <https://doi.org/10.1364/boe.6.002211>
196. Dimitrios Charitaras; Harilaos Ginis; Pablo Artal (2015). **Spatial properties of fundus reflectance and red-green relative spectral sensitivity.** Journal of the Optical Society of America A 32(9), 1723-1728. <https://doi.org/10.1364/josaa.32.001723>
197. J Polans; B Jaeken; RP McNabb; P Artal; JA Izatt (2015). **Wide-field optical model of the human eye with asymmetrically tilted and decentered lens that reproduces measured ocular aberrations.** Optica 2(2), 124-134. <https://doi.org/10.1364/optica.2.000124>

2016

198. Antonio Benito; Lucía Hervella; Juan Tabernero; Alexandros Pennos; Harilaos Ginis; Juan F Sánchez-Romera; Juan R Ordoñana; Marcos Ruiz-Sánchez; José M Marín; Pablo Artal (2016). **Environmental and Genetic Factors Explain Differences in Intraocular Scattering**. *Investigative Ophthalmology & Visual Science* 57(1), 163-168. <https://doi.org/10.1167/iovs.15-17897>
199. José Luis Martínez Fuentes; Enrique J Fernández; Pedro M Prieto; Pablo Artal (2016). **Interferometric method for phase calibration in liquid crystal spatial light modulators using a self-generated diffraction-grating**. *Optics Express* 24(13), 14159-14171. <https://doi.org/10.1364/oe.24.014159>
200. Dimitrios Christaras; Harilaos Ginis; Alexandros Pennos; Pablo Artal (2016). **Intraocular scattering compensation in retinal imaging**. *Biomedical Optics Express* 7(10), 3996-4006. <https://doi.org/10.1364/boe.7.003996>
201. Silvestre Manzanera; Pablo Artal (2016). **Minimum change in spherical aberration that can be perceived**. *Biomedical Optics Express* 7(9), 3471-3477. <https://doi.org/10.1364/boe.7.003471>
202. Emmanuel Chirre; Pedro M Prieto; Christina Schwarz; Pablo Artal (2016). **Night myopia is reduced in binocular vision**. *Journal of Vision* 16(8), 16. <https://doi.org/10.1167/16.8.16>
203. Onurcan Sahin; Alexandros Pennos; Harilaos Ginis; Lucia Hervella; Eloy A Villegas; Belen Cañizares; Jose Maria Marin; Ioannis Pallikaris; Pablo Artal (2016). **Optical Measurement of Straylight in Eyes With Cataract**. *Journal of Refractive Surgery* 32(12), 846-850. <https://doi.org/10.3928/1081597x-20160920-02>
204. Martin Skorsetz; Pablo Artal; Juan M Bueno (2016). **Performance evaluation of a sensorless adaptive optics multiphoton microscope**. *Journal of Microscopy* 261(3), 249-258. <https://doi.org/10.1111/jmi.12325>
205. Benjamin Lochocki; Adrián Gambín-Regadera; Pablo Artal (2016). **Performance evaluation of a two detector camera for real-time video**. *Applied Optics* 55(36), 10198-10203. <https://doi.org/10.1364/ao.55.010198>
206. Benjamin Lochocki; Adrian Gambín; Silvestre Manzanera; Esther Irlés; Enrique Tajahuerce; Jesus Lancis; Pablo Artal (2016). **Single pixel camera ophthalmoscope**. *Optica* 3(10), 1056-1059. <https://doi.org/10.1364/optica.3.001056>
207. Juan Tabernero; Emmanuel Chirre; Lucía Hervella; Pedro Prieto; Pablo Artal (2016). **The accommodative ciliary muscle function is preserved in older humans**. *Scientific Reports* 6(1), 25551. <https://doi.org/10.1038/srep25551>

2017

208. Enrique J Fernandez; Pablo Artal (2017). **Achromatic doublet intraocular lens for full aberration correction**. *Biomedical Optics Express* 8(5), 2396-2404. <https://doi.org/10.1364/boe.8.002396>
209. Jose L Martinez; Enrique J Fernandez; Pedro M Prieto; Pablo Artal (2017). **Chromatic aberration control with liquid crystal spatial phase modulators**. *Optics Express* 25(9), 9793-9801. <https://doi.org/10.1364/oe.25.009793>
210. Sophie Maedel; Nino Hirschall; Natascha Bayer; Sabine Markovic; Juan Tabernero; Pablo Artal; Frank Schaeffel; Oliver Findl (2017). **Comparison of intraocular lens decentration and tilt measurements using 2 Purkinje meter systems**. *Journal of Cataract and Refractive Surgery* 43(5), 648-655. <https://doi.org/10.1016/j.jcrs.2017.01.022>
211. Juan M Bueno; Francisco J Ávila; Pablo Artal (2017). **Comparison of second harmonic microscopy images of collagen-based ocular tissues with 800 and 1045 nm**. *Biomedical Optics Express* 8(11), 5065-5074. <https://doi.org/10.1364/boe.8.005065>
212. Juan Tabernero; Lucía Hervella; Antonio Benito; Lucía Colodro-Conde; Juan R Ordoñana; Marcos Ruiz-Sanchez; José María Marín; Pablo Artal (2017). **Micrometric Control of the Optics of the Human Eye: Environment or Genes?**. *Investigative Ophthalmology & Visual Science* 58(4), 1964-1970. <https://doi.org/10.1167/iovs.16-20957>
213. Alexandros Pennos; Harilaos Ginis; Augusto Arias; Dimitrios Christaras; Pablo Artal (2017). **Performance of a differential contrast sensitivity method to measure intraocular scattering**. *Biomedical Optics Express* 8(3), 1382-1389. <https://doi.org/10.1364/boe.8.001382>
214. Dimitrios Christaras; Harilaos Ginis; Alexandros Pennos; Pablo Artal (2017). **Scattering contribution to the double-pass PSF using Monte Carlo simulations**. *Ophthalmic and Physiological Optics* 37(3), 342-346. <https://doi.org/10.1111/opo.12375>
215. Annette Harrer; Nino Hirschall; Juan Tabernero; Pablo Artal; Petra Draschl; Sophie Maedel; Oliver Findl (2017). **Variability in angle κ and its influence on higher-order aberrations in pseudophakic eyes**. *Journal of Cataract and Refractive Surgery* 43(8), 1015-1019. <https://doi.org/10.1016/j.jcrs.2017.05.028>

216. Susana Marcos; John S Werner; Stephen A Burns; William H Merigan; Pablo Artal; David A Atchison; Karen M Hampson; Richard Legras; Linda Lundstrom; Geunyoung Yoon; Joseph Carroll; Stacey S Choi; Nathan Doble; Adam M Dubis; Alfredo Dubra; Ann Elsner; Ravi Jonnal; Donald T Miller; Michel Paques; Hannah E Smithson; Laura K Young; Yuhua Zhang; Melanie Campbell; Jennifer Hunter; Andrew Metha; Grazyna Palczewska; Jesse Schallek; Lawrence C Sincich (2017). **Vision science and adaptive optics, the state of the field.** Vision Research 132, 3-33. [Review or perspective]. <https://doi.org/10.1016/j.visres.2017.01.006>

217. P Artal; S Manzanera; K Komar; A Gambín-Regadera; M Wojtkowski (2017). **Visual acuity in two-photon infrared vision.** Optica 4(12), 1488-1491. <https://doi.org/10.1364/optica.4.001488>

2018

218. J Polans; B Jaeken; RP McNabb; P Artal; JA Izatt (2018). **Asymmetric wide-field optical model of the human eye with tilted and decentered crystalline lens that reproduces experimentally measured aberrations: errata.** Optica 5(11), 1461. [Correction]. <https://doi.org/10.1364/optica.5.001461>

219. Muhammad A Qureshi; Scott J Robbie; Fritz H Hengerer; Gerd U Auffarth; Ina Conrad-Hengerer; Pablo Artal (2018). **Consecutive case series of 244 age-related macular degeneration patients undergoing implantation with an extended macular vision IOL.** European Journal of Ophthalmology 28(2), 198-203. <https://doi.org/10.5301/ejo.5001052>

220. J Mompeán; JL Aragón; PM Prieto; P Artal (2018). **Design of an accurate and high-speed binocular pupil tracking system based on GPGPUs.** The Journal of Supercomputing 74(5), 1836-1862. <https://doi.org/10.1007/s11227-017-2193-5>

221. Dimitrios Christaras; Alexandros Pennos; Harilaos Ginis; Pablo Artal (2018). **Effect of intraocular scattering in macular pigment optical density measurements.** Journal of Biomedical Optics 23(05), 056001. <https://doi.org/10.1117/1.jbo.23.5.056001>

222. Lucie Sawides; Adrián Gambín-Regadera; Alberto de Castro; Pablo Artal (2018). **High speed visual stimuli generator to estimate the minimum presentation time required for an orientation discrimination task.** Biomedical Optics Express 9(6), 2640-2647. <https://doi.org/10.1364/boe.9.002640>

223. M Skorsetz; P Artal; JM Bueno (2018). **Improved multiphoton imaging in biological samples by using variable pulse compression and wavefront assessment.** Optics Communications 422, 44-51. <https://doi.org/10.1016/j.optcom.2017.12.040>

224. Scott J Robbie; Juan Tabernero; Pablo Artal; Muhammad A Qureshi (2018). **Initial Clinical Results With a Novel Monofocal-Type Intraocular Lens for Extended Macular Vision in Patients With Macular Degeneration.** Journal of Refractive Surgery 34(11), 718-725. <https://doi.org/10.3928/1081597x-20180831-01>

225. Augusto Arias; Harilaos Ginis; Pablo Artal (2018). **Light scattering in the human eye modelled as random phase perturbations.** Biomedical Optics Express 9(6), 2664-2670. <https://doi.org/10.1364/boe.9.002664>

226. Pablo Artal; Silvestre Manzanera (2018). **Perceived brightness with small apertures.** Journal of Cataract and Refractive Surgery 44(6), 734-737. <https://doi.org/10.1016/j.jcrs.2018.03.032>

227. I Grulkowski; S Manzanera; L Cwiklinski; F Sobczuk; K Karnowski; P Artal (2018). **Swept source optical coherence tomography and tunable lens technology for comprehensive imaging and biometry of the whole eye.** Optica 5(1), 52-59. <https://doi.org/10.1364/optica.5.000052>

228. Alberto de Castro; Antonio Benito; Silvestre Manzanera; Juan Mompeán; Belén Cañizares; David Martínez; Jose María Marín; Ireneusz Grulkowski; Pablo Artal (2018). **Three-Dimensional Cataract Crystalline Lens Imaging With Swept-Source Optical Coherence Tomography.** Investigative Ophthalmology & Visual Science 59(2), 897-903. <https://doi.org/10.1167/iov.17-23596>

229. Ireneusz Grulkowski; Silvestre Manzanera; Lukasz Cwiklinski; Juan Mompeán; Alberto de Castro; Jose Maria Marin; Pablo Artal (2018). **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 9(8), 3821-3833. <https://doi.org/10.1364/boe.9.003821>

230. Juan M Bueno; Martin Skorsetz; Stefano Bonora; Pablo Artal (2018). **Wavefront correction in two-photon microscopy with a multi-actuator adaptive lens.** Optics Express 26(11), 14278-14287. <https://doi.org/10.1364/oe.26.014278>

2019

231. Miguel García García; Siegfried Wahl; Dibyendu Pusti; Pablo Artal; Arne Ohlendorf (2019). **2-D Peripheral image quality metrics with different types of multifocal contact lenses.** Scientific Reports 9(1), 18487. <https://doi.org/10.1038/s41598-019-54783-x>

232. Silvestre Manzanera; Kyle Webb; Pablo Artal (2019). **Adaptation to Brightness Perception in Patients Implanted With a Small Aperture.** American Journal of Ophthalmology 197, 36-44. <https://doi.org/10.1016/j.ajo.2018.09.004>
233. Lucía Hervella; Eloy A Villegas; Pedro M Prieto; Pablo Artal (2019). **Assessment of subjective refraction with a clinical adaptive optics visual simulator.** Journal of Cataract and Refractive Surgery 45(1), 87-93. <https://doi.org/10.1016/j.jcrs.2018.08.022>
234. Juan M Bueno; Francisco J Ávila; Pablo Artal (2019). **Comparing the performance of a femto fiber-based laser and a Ti:sapphire used for multiphoton microscopy applications.** Applied Optics 58(14), 3830-3835. <https://doi.org/10.1364/ao.58.003830>
235. Eloy A Villegas; Silvestre Manzanera; Carmen M Lago; Lucía Hervella; Lucie Sawides; Pablo Artal (2019). **Effect of Crystalline Lens Aberrations on Adaptive Optics Simulation of Intraocular Lenses.** Journal of Refractive Surgery 35(2), 126-131. <https://doi.org/10.3928/1081597x-20181212-02>
236. D Sola; S Alamri; AF Lasagni; P Artal (2019). **Fabrication and characterization of diffraction gratings in ophthalmic polymers by using UV direct laser interference patterning.** Applied Surface Science 476, 128-135. <https://doi.org/10.1016/j.apsusc.2019.01.071>
237. J Mompeán; JL Aragón; PM Prieto; P Artal (2019). **GPU-based processing of Hartmann-Shack images for accurate and high-speed ocular wavefront sensing.** Future Generation Computer Systems 91, 177-190. <https://doi.org/10.1016/j.future.2018.09.010>
238. Nikolai Suchkov; Enrique J Fernández; Pablo Artal (2019). **Impact of longitudinal chromatic aberration on through-focus visual acuity.** Optics Express 27(24), 35935-35947. <https://doi.org/10.1364/oe.27.035935>
239. Francisco J Ávila; Adrián Gambín; Pablo Artal; Juan M Bueno (2019). **In vivo two-photon microscopy of the human eye.** Scientific Reports 9(1), 10121. <https://doi.org/10.1038/s41598-019-46568-z>
240. Dimitrios Christaras; Harilaos Ginis; Alexandros Pennos; Juan Mompean; Pablo Artal (2019). **Objective method for measuring the macular pigment optical density in the eye.** Biomedical Optics Express 10(7), 3572-3583. <https://doi.org/10.1364/boe.10.003572>
241. Eloy A Villegas; Encarna Alcón; Elena Rubio; José María Marín; Pablo Artal (2019). **One-year follow-up of changes in refraction and aberrations induced by corneal incision.** PLOS ONE 14(11), e0224823. <https://doi.org/10.1371/journal.pone.0224823>
242. Naren Shetty; Shruti Kochar; Prajakta Paritekar; Pablo Artal; Rohit Shetty; Rudy M M A Nuijts; Carroll A B Webers; Abhijit Sinha Roy (2019). **Patient-specific determination of change in ocular spherical aberration to improve near and intermediate visual acuity of presbyopic eyes.** Journal of Biophotonics 12(4), e201800259. <https://doi.org/10.1002/jbio.201800259>
243. Francisco J Ávila; Pablo Artal; Juan M Bueno (2019). **Quantitative Discrimination of Healthy and Diseased Corneas With Second Harmonic Generation Microscopy.** Translational Vision Science & Technology 8(3), 51. <https://doi.org/10.1167/tvst.8.3.51>
244. Nikolai Suchkov; Enrique J Fernández; Jose L Martínez-Fuentes; Ignacio Moreno; Pablo Artal (2019). **Simultaneous aberration and aperture control using a single spatial light modulator.** Optics Express 27(9), 12399-12413. <https://doi.org/10.1364/oe.27.012399>
245. Rahul Dutta; Silvestre Manzanera; Adrián Gambín-Regadera; Esther Irles; Enrique Tajahuerce; Jesús Lancis; Pablo Artal (2019). **Single-pixel imaging of the retina through scattering media.** Biomedical Optics Express 10(8), 4159-4167. <https://doi.org/10.1364/boe.10.004159>
246. Antonio Benito; Juan M Bueno; Guillermo M Pérez; Pablo Artal (2019). **Tear-film dynamics by combining double-pass images, pupil retro-illumination, and contrast sensitivity.** Journal of the Optical Society of America A 36(4), B138-B142. <https://doi.org/10.1364/josaa.36.00b138>
247. Weizhong Lan; Zhenghua Lin; Zhikuang Yang; Pablo Artal (2019). **Two-dimensional Peripheral Refraction and Retinal Image Quality in Emmetropic Children.** Scientific Reports 9(1), 16203. <https://doi.org/10.1038/s41598-019-52533-7>
248. Nikolai Suchkov; Enrique J Fernández; Pablo Artal (2019). **Wide-range adaptive optics visual simulator with a tunable lens.** Journal of the Optical Society of America A 36(5), 722-730. <https://doi.org/10.1364/josaa.36.000722>

2020

249. Pablo Artal; John Barbur (2020). **33rd International Pupil Colloquium, Murcia, Universidad de Murcia (Spain); 2nd-4th October 2019.** Ophthalmic and Physiological Optics 40(3), 376. [Editorial or meeting report]. <https://doi.org/10.1111/opo.12688>

250. Enrique J Fernandez; Nikolai Suchkov; Pablo Artal (2020). **Adaptation to the eye's chromatic aberration measured with an adaptive optics visual simulator**. Optics Express 28(25), 37450-37458. <https://doi.org/10.1364/oe.404296>
251. Iván Rivilla; Borja Aparicio; Juan M Bueno; David Casanova; Claire Tonnelé; Zoraida Freixa; Pablo Herrero; Celia Rogero; José I Miranda; Rosa M Martínez-Ojeda; Francesc Monrabal; Beñat Olave; Thomas Schäfer; Pablo Artal; David Nygren; Fernando P Cossío; Juan J Gómez-Cadenas (2020). **Fluorescent bicolour sensor for low-background neutrinoless double β decay experiments**. Nature 583(7814), 48-54. <https://doi.org/10.1038/s41586-020-2431-5>
252. Ashish Gupta; Daniel Ruminski; Alfonso Jimenez Villar; Raúl Duarte Toledo; Silvestre Manzanera; Spozmai Panezai; Juan Mompeán; Pablo Artal; Ireneusz Grulkowski (2020). **In vivo SS-OCT imaging of crystalline lens sutures**. Biomedical Optics Express 11(10), 5388-5400. <https://doi.org/10.1364/boe.401254>
253. Dibyendu Pusti; Antonio Benito; Juan J Madrid-Valero; Juan R Ordoñana; Pablo Artal (2020). **Inheritance of Refractive Error in Millennials**. Scientific Reports 10(1), 8173. <https://doi.org/10.1038/s41598-020-65130-w>
254. Konstantina A Togka; Angelos Livir-Rallatos; Dimitrios Christaras; Spyridon Tsoukalas; Nikolaos Papasfakis; Pablo Artal; Harilaos Ginis (2020). **Peripheral image quality in pseudophakic eyes**. Biomedical Optics Express 11(4), 1892-1900. <https://doi.org/10.1364/boe.387254>
255. Augusto Arias; Alba M Paniagua-Díaz; Pedro M Prieto; Javier Roca; Pablo Artal (2020). **Phase-only modulation with two vertical aligned liquid crystal devices**. Optics Express 28(23), 34180-34189. <https://doi.org/10.1364/oe.410429>
256. Juan Mompeán; Juan L Aragón; Pablo Artal (2020). **Portable device for presbyopia correction with optoelectronic lenses driven by pupil response**. Scientific Reports 10(1), 20293. <https://doi.org/10.1038/s41598-020-77465-5>
257. Lucía Hervella; Eloy A Villegas; Consuelo Robles; Pablo Artal (2020). **Spherical Aberration Customization to Extend the Depth of Focus With a Clinical Adaptive Optics Visual Simulator**. Journal of Refractive Surgery 36(4), 223-229. <https://doi.org/10.3928/1081597x-20200212-02>
258. Augusto Arias; Harilaos Ginis; Pablo Artal (2020). **Straylight in Different Types of Intraocular Lenses**. Translational Vision Science & Technology 9(12), 16. <https://doi.org/10.1167/tvst.9.12.16>
259. Daniel Sola; Javier R Vázquez de Aldana; Pablo Artal (2020). **The Role of Thermal Accumulation on the Fabrication of Diffraction Gratings in Ophthalmic PHEMA by Ultrashort Laser Direct Writing**. Polymers 12(12), 2965. <https://doi.org/10.3390/polym12122965>
260. Zhenghua Lin; Raul Duarte-Toledo; Silvestre Manzanera; Weizhong Lan; Pablo Artal; Zhikuan Yang (2020). **Two-dimensional peripheral refraction and retinal image quality in orthokeratology lens wearers**. Biomedical Optics Express 11(7), 3523-3533. <https://doi.org/10.1364/boe.397077>
261. Sidi Wang; Zhenghua Lin; Xiaoyun Xi; Yiqiu Lu; Lun Pan; Xiaoning Li; Pablo Artal; Weizhong Lan; Zhikuan Yang (2020). **Two-Dimensional, High-Resolution Peripheral Refraction in Adults with Isomyopia and Anisomyopia**. Investigative Ophthalmology & Visual Science 61(6), 16. <https://doi.org/10.1167/iov.61.6.16>
262. Silvestre Manzanera; Daniel Sola; Noe Khalifa; Pablo Artal (2020). **Vision with pulsed infrared light is mediated by nonlinear optical processes**. Biomedical Optics Express 11(10), 5603-5617. <https://doi.org/10.1364/boe.403695>
263. A Arias; P Artal (2020). **Wavefront-shaping-based correction of optically simulated cataracts**. Optica 7(1), 22-27. <https://doi.org/10.1364/optica.7.000022>

2021

264. Güneş Aydindoğan; Koray Kavaklı; Afsun Şahin; Pablo Artal; Hakan Ürey (2021). **Applications of augmented reality in ophthalmology [Invited]**. Biomedical Optics Express 12(1), 511-538. <https://doi.org/10.1364/boe.405026>
265. Juan Mompeán; Juan L Aragón; Pablo Artal (2021). **Author Correction: Portable device for presbyopia correction with optoelectronic lenses driven by pupil response**. Scientific Reports 11(1), 7351. [Correction]. <https://doi.org/10.1038/s41598-021-86901-z>
266. Vahid Pourreza Ghouschi; Juan Mompeán; Pedro M Prieto; Pablo Artal (2021). **Binocular dynamics of accommodation, convergence, and pupil size in myopes**. Biomedical Optics Express 12(6), 3282-3295. <https://doi.org/10.1364/boe.420334>
267. Dibyendu Pusti; Antonio Benito; Juan J Madrid-Valero; Juan R Ordoñana; Pablo Artal (2021). **Disparity between central and peripheral refraction inheritance in twins**. Scientific Reports 11(1), 12196. <https://doi.org/10.1038/s41598-021-90838-8>
268. AM Paniagua-Díaz; A Jiménez-Villar; I Grulkowski; P Artal (2021). **Double-pass wavefront shaping for scatter correction in a cataract's model**. Optics Express 29(25), 42208-42214. <https://doi.org/10.1364/oe.442286>
269. JM Bueno; G Hernández; M Skorsetz; P Artal (2021). **Improving Multiphoton Microscopy by Combining Spherical Aberration Patterns and Variable Axicons**. Photonics 8(12), 573. <https://doi.org/10.3390/photonics8120573>

270. Yiwei Chen; Silvestre Manzanera; Juan Mompeán; Daniel Ruminski; Ireneusz Grulkowski; Pablo Artal (2021). **Increased crystalline lens coverage in optical coherence tomography with oblique scanning and volume stitching**. Biomedical Optics Express 12(3), 1529-1542. <https://doi.org/10.1364/boe.418051>
271. Juan Tabernero; Nery Garcia-Porta; Pablo Artal; Shahina Pardhan (2021). **Intraocular Scattering, Blinking Rate, and Tear Film Osmolarity After Exposure to Environmental Stress**. Translational Vision Science & Technology 10(9), 12. <https://doi.org/10.1167/tvst.10.9.12>
272. Jorge L Alio; Augusto Arias; Francesco D'Oria; Francesca Toto; Jorge Alio Del Barrio; Raul Duarte; Pablo Artal (2021). **Light scattering in intraocular lenses explanted 15 to 40 years after surgery**. Biomedical Optics Express 12(6), 3485-3494. <https://doi.org/10.1364/boe.423652>
273. Susana Marcos; Eduardo Martinez-Enriquez; Maria Vinas; Alberto de Castro; Carlos Dorronsoro; Seung Pil Bang; Geunyoung Yoon; Pablo Artal (2021). **Simulating Outcomes of Cataract Surgery: Important Advances in Ophthalmology**. Annual Review of Biomedical Engineering 23(1), 277-306. <https://doi.org/10.1146/annurev-bioeng-082420-035827>
274. Daniel Ruminski; J Sebag; Raúl Duarte Toledo; Alfonso Jiménez-Villar; Jan K Nowak; Silvestre Manzanera; Pablo Artal; Ireneusz Grulkowski (2021). **Volumetric Optical Imaging and Quantitative Analysis of Age-Related Changes in Anterior Human Vitreous**. Investigative Ophthalmology & Visual Science 62(4), 31. <https://doi.org/10.1167/iovs.62.4.31>

2022

275. Susana Marcos; Pablo Artal; David A Atchison; Karen Hampson; Richard Legras; Linda Lundström; Geunyoung Yoon (2022). **Adaptive optics visual simulators: a review of recent optical designs and applications [Invited]**. Biomedical Optics Express 13(12), 6508-6532. [Review or perspective]. <https://doi.org/10.1364/boe.473458>
276. Sonia Ortiz-Peregrina; Miriam Casares-López; José J Castro-Torres; Rosario G Anera; Pablo Artal (2022). **Effect of peripheral refractive errors on driving performance**. Biomedical Optics Express 13(10), 5533-5550. <https://doi.org/10.1364/boe.468032>
277. J Mompeán; JL Aragón; P Artal (2022). **Energy-efficient design of a presbyopia correction wearable powered by mobile GPUs and FPGAs**. The Journal of Supercomputing 78(9), 11657-11679. <https://doi.org/10.1007/s11227-022-04332-7>
278. Enrique J Fernandez; Santiago Sager; Zhenghua Lin; Jiangdong Hao; Javier Roca; Pedro M Prieto; Zhikuan Yang; Weizhong Lan; Pablo Artal (2022). **Instrument for fast whole-field peripheral refraction in the human eye**. Biomedical Optics Express 13(5), 2947-2959. <https://doi.org/10.1364/boe.457686>
279. Spozmai Panezai; Alfonso Jiménez-Villar; Alba M. Paniagua Díaz; Augusto Arias; Grzegorz Gondek; Silvestre Manzanera; Pablo Artal; Ireneusz Grulkowski (2022). **Intraocular scatter compensation with spatial light amplitude modulation for improved vision in simulated cataractous eyes**. Biomedical Optics Express 13(4), 2174-2185. <https://doi.org/10.1364/boe.451878>
280. Eloy A Villegas; José M Marín; Harilaos Ginis; Consuelo Robles; Encarna Alcón; Lucia Hervella; Pedro M Prieto; Pedro Taña-Rivero; Pablo Artal (2022). **Peripheral Refraction and Contrast Detection Sensitivity in Pseudophakic Patients Implanted With a New Meniscus Intraocular Lens**. Journal of Refractive Surgery 38(4), 229-234. <https://doi.org/10.3928/1081597x-20220113-01>
281. Daniel Malacara-Hernández; Alfredo Dubra; Jim Schwiegerling; Pablo Artal; Yobani Mejía; Eva Acosta Plaza (2022). **Special Section Guest Editorial: Advances in Optical Measurements and Instrumentation for Ophthalmology and Optometry**. Optical Engineering 61(12), 1. <https://doi.org/10.1117/1.oe.61.12.121801>
282. AM Paniagua-Díaz; J Mompeán; P Artal (2022). **Vertical-aligned liquid crystal devices for ocular wavefront correction and simulation**. Optical Engineering 61(12), 1-6. <https://doi.org/10.1117/1.oe.61.12.121806>

2023

283. Ashish Gupta; Daniel Ruminski; Alfonso Jimenez Villar; Raúl Duarte Toledo; Grzegorz Gondek; Barbara Pierscionek; Pablo Artal; Ireneusz Grulkowski (2023). **Age-related changes in geometry and transparency of human crystalline lens revealed by optical signal discontinuity zones in swept-source OCT images**. Eye and Vision 10(1), 46. <https://doi.org/10.1186/s40662-023-00365-y>
284. Rosa M Martínez-Ojeda; Laurent M Mugnier; Pablo Artal; Juan M Bueno (2023). **Blind deconvolution of second harmonic microscopy images of the living human eye**. Biomedical Optics Express 14(5), 2117-2128. <https://doi.org/10.1364/boe.486989>
285. Dimitrios Charitaras; Spyridon Tsoukalas; Petros Papadogiannis; Charlie Börjeson; Moa Volny; Linda Lundström; Pablo Artal; Harilaos Ginis (2023). **Central and peripheral refraction measured by a novel double-pass instrument**. Biomedical Optics Express 14(6), 2608-2617. <https://doi.org/10.1364/boe.489881>

286. P Gil; J Tabernero; S Manzanera; C Schwarz; P Artal (2023). **Color characterization of infrared two-photon vision**. *Optica* 10(12), 1737-1744. <https://doi.org/10.1364/optica.507240>
287. A Arias; A Ohlendorf; P Artal; S Wahl (2023). **In-depth optical characterization of spectacle lenses for myopia progression management**. *Optica* 10(5), 594-603. <https://doi.org/10.1364/optica.486389>
288. Pablo Artal; Harilaos Ginis; Dimitrios Christaras; Eloy A Villegas; Juan Tabernero; Pedro M Prieto (2023). **Inverted meniscus intraocular lens as a better optical surrogate of the crystalline lens**. *Biomedical Optics Express* 14(5), 2129-2137. <https://doi.org/10.1364/boe.490089>
289. Alba M Paniagua-Díaz; Dulce M Simón; Carmen Martínez; Elena Moreno; Alba Rodríguez-Ródenas; Inés Yago; Jose María Marín; Pablo Artal (2023). **Optical memory effect of excised cataractous human crystalline lenses**. *Biomedical Optics Express* 14(2), 639-650. <https://doi.org/10.1364/boe.480678>
290. Zhenghua Lin; Xiaoyun Xi; Longbo Wen; Zhiwei Luo; Pablo Artal; Zhikuan Yang; Weizhong Lan (2023). **Relative Myopic Defocus in the Superior Retina as an Indicator of Myopia Development in Children**. *Investigative Ophthalmology & Visual Science* 64(4), 16. <https://doi.org/10.1167/iov.64.4.16>
291. Zhenghua Lin; Yiqiu Lu; Pablo Artal; Zhikuan Yang; Weizhong Lan (2023). **Two-Dimensional Peripheral Refraction and Image Quality for Four Types of Refractive Surgeries**. *Journal of Refractive Surgery* 39(1), 40-47. <https://doi.org/10.3928/1081597x-20221115-01>
292. Xiaoyun Xi; Jiangdong Hao; Zhenghua Lin; Sidi Wang; Zhikuan Yang; Weizhong Lan; Pablo Artal (2023). **Two-dimensional peripheral refraction in adults**. *Biomedical Optics Express* 14(5), 2375-2385. <https://doi.org/10.1364/boe.488098>
293. José M Marín; Lucía Hervella; Eloy Villegas; Consuelo Robles; Encarna Alcón; Inés Yago; Pablo Artal (2023). **Visual Performance at All Distances and Patient Satisfaction With a New Aspheric Inverted Meniscus Intraocular Lens**. *Journal of Refractive Surgery* 39(9), 582-588. <https://doi.org/10.3928/1081597x-20230802-01>

2024

294. Vahid Pourreza Ghouschi; Juan Mompeán; Pedro M Prieto; Pablo Artal (2024). **Contrast sensitivity is resilient to induced fast periodic defocus oscillations**. *Biomedical Optics Express* 15(6), 3848-3858. <https://doi.org/10.1364/boe.521340>
295. Augusto Arias; Diego Montagud-Martínez; Pablo Artal (2024). **Effects of intraocular scatter on near peripheral vision**. *Biomedical Optics Express* 15(4), 2517-2523. <https://doi.org/10.1364/boe.523715>
296. Yuanfang Yang; Minsong Xue; Jiangdong Hao; Zhenghua Lin; Xiaoyun Xi; Haoran Wu; Longbo Wen; Qinglin Xu; Zhiwei Luo; Guangyao Ran; Pablo Artal; Weizhong Lan; Xiaoning Li; Zhikuan Yang (2024). **Frequency-dependent effects of 0.05% atropine eyedrops on myopia progression and peripheral defocus: a prospective study**. *Eye and Vision* 11(1), 26. <https://doi.org/10.1186/s40662-024-00395-0>
297. Shoaib R Soomro; Santiago Sager; Alba M Paniagua-Díaz; Pedro M Prieto; Pablo Artal (2024). **Head-mounted adaptive optics visual simulator**. *Biomedical Optics Express* 15(2), 608-623. <https://doi.org/10.1364/boe.506858>
298. Dibyendu Pusti; Antonio Benito; Juan J Madrid-Valero; Juan R Ordoñana; Pablo Artal (2024). **Impact of Genetic and Environmental Factors on Peripheral Refraction**. *Translational Vision Science & Technology* 13(10), 33. <https://doi.org/10.1167/tvst.13.10.33>
299. Clara García-Pedreño; Juan Tabernero; Antonio Benito; Pablo Artal (2024). **Impact of Peripheral Refractive Errors in Mobility Performance**. *Investigative Ophthalmology & Visual Science* 65(6), 42. <https://doi.org/10.1167/iov.65.6.42>
300. Naren Shetty; Rohit Shetty; Pablo Artal; Reshma Ranade; Raghav Narasimhan; Rudy M M A Nuijts; Abhijit Sinha Roy (2024). **Inducing cylindrical and spherical defocus after implantation with new generation intraocular lenses improves intermediate and near visual acuity**. *Scientific Reports* 14(1), 31934. <https://doi.org/10.1038/s41598-024-83387-3>
301. Consuelo Robles; Pedro M Prieto; Jose M Marin-Sanchez; Encarna Alcon; Lucia Hervella; Despoina Theotoka; Harilaos S Ginis; Pablo Artal (2024). **Inverted meniscus IOLs reduce image shifts in the periphery compared to biconvex IOLs**. *Biomedical Optics Express* 15(12), 7013-7021. <https://doi.org/10.1364/boe.547787>
302. Alba M Paniagua-Díaz; Justin H Nguyen; Pablo Artal; Wei Gui; J Sebag (2024). **Light Scattering by Vitreous of Humans With Vision Degrading Myodesopsia From Floaters**. *Investigative Ophthalmology & Visual Science* 65(5), 20. <https://doi.org/10.1167/iov.65.5.20>
303. Megan Vaughan; Nery García-Porta; Juan Tabernero; Javier Gantes-Núñez; Pablo Artal; Shahina Pardhan (2024). **Ocular effects of exposure to low-humidity environment with contact lens wear: A pilot study**. *Ophthalmic and Physiological Optics* 44(4), 718-726. <https://doi.org/10.1111/opo.13308>

304. Pablo Artal; Maria Arvaniti; Panaghiota Dimou; Costas Stavrinou; Harilaos Ginis; Lucía Hervella; José Luis Güell (2024). **Peripheral Vision in Patients Following Intraocular Lens Implantation: A Systematic Review and Meta-Analysis.** American Journal of Ophthalmology 264, 120-134. [Review or perspective]. <https://doi.org/10.1016/j.ajo.2024.03.016>
305. Erick Ipus; Armin J M Lenz; Jesús Lancis; Alba M Paniagua-Díaz; Pablo Artal; Enrique Tajahuerce (2024). **Single-pixel imaging through non-homogeneous turbid media with adaptive illumination.** Optics Express 32(8), 13797-13808. <https://doi.org/10.1364/oe.519382>
306. Silvestre Manzanera; Pablo Artal (2024). **Stability of the retinal image under normal viewing conditions and the implications for neural adaptation.** Scientific Reports 14(1), 2280. <https://doi.org/10.1038/s41598-024-52612-4>
307. Benjamin D Sullivan; Marta Palazón de la Torre; Ines Yago; Raúl Duarte; Julie M Schallhorn; Lisa M Nijm; Darrell E White; Michael S Berg; Pablo Artal (2024). **Tear Film Hyperosmolarity is Associated with Increased Variation of Light Scatter Following Cataract Surgery.** Clinical Ophthalmology Volume 18, 2419-2426. <https://doi.org/10.2147/ophth.s484840>
308. Jiangdong Hao; Zhenghua Lin; Xiaoyun Xi; Zhikuan Yang; Pablo Artal; Weizhong Lan (2024). **The induced defocus by Defocus Incorporated Soft Contact lenses is dependent on visual distance and ambient illuminance.** Ophthalmic and Physiological Optics 44(6), 1237-1247. <https://doi.org/10.1111/opo.13364>
309. Santiago Sager; Arturo Vicente-Jaen; Zhenghua Lin; Pedro M Prieto; Zhikuan Yang; Weizhong Lan; Pablo Artal (2024). **Ultra-wide-angle peripheral refraction using a laser-scanning instrument.** Biomedical Optics Express 15(11), 6486-6498. <https://doi.org/10.1364/boe.540051>
310. Naren Shetty; Rohit Shetty; Reshma Ranade; Raghav Narasimhan; Pablo Artal; Rudy M M A Nuijts; Abhijit Sinha Roy (2024). **Using adaptive optics to optimize the spherical aberration of eyes implanted with EDOF and enhanced monofocal intraocular lenses.** Journal of Cataract & Refractive Surgery 50(1), 30-36. <https://doi.org/10.1097/j.jcrs.0000000000001315>
311. Harilaos S Ginis; Spyridon Tsoukalas; Dimitrios Christaras; Pablo Artal (2024). **Visually relevant on-bench through-focus analysis of intraocular lenses.** Biomedical Optics Express 15(12), 7056-7065. <https://doi.org/10.1364/boe.540034>

2025

312. Z Lin; W Lan; Z Yang; P Artal (2025). **A review of peripheral refraction in myopia research.** Journal of Bio-optics 1(1), 1-18. [Review or perspective]. <https://doi.org/10.53941/jbiop.2025.100003>
313. Santiago Sager; Adrián Gambín; Pedro M Prieto; Pablo Artal (2025). **Binocular adaptive optics visual simulator with convergence control.** Biomedical Optics Express 16(10), 4017-4026. <https://doi.org/10.1364/boe.570747>
314. Augusto Arias; Susanna P Clement; Pablo Artal; Siegfried Wahl (2025). **Chromatic imaging properties of myopia control spectacle lenses.** Biomedical Optics Express 16(4), 1499-1512. <https://doi.org/10.1364/boe.545932>
315. Pedro Gil; Juan Tabernero; Silvestre Manzanera; Christina Schwarz; Pablo Artal (2025). **Color vision with a two-photon infrared RGB display.** Biomedical Optics Express 16(12), 5221-5234. <https://doi.org/10.1364/boe.580910>
316. Konstantinos Ntatsis; Dimitrios Christaras; Pablo Artal; Harilaos Ginis (2025). **Deep learning ocular aberration retrieval from simulated retinal images under straylight.** Biomedical Optics Express 16(7), 2709-2718. <https://doi.org/10.1364/boe.559749>
317. Juan Tabernero; Carles Otero; John Kidd; Laura Zahiño; Ana Noia; Jose Luis Güell; Pablo Artal; Shahina Pardhan (2025). **Depth of focus as a function of spherical aberration using adaptive optics in pseudophakic subjects.** Journal of Cataract & Refractive Surgery 51(4), 307. <https://doi.org/10.1097/j.jcrs.0000000000001608>
318. Michael J Simpson; Damien Gatinel; Miguel Faria-Ribeiro; Xin Wei; Geunyoung Yoon; Junzhong Liang; Pablo Artal; Susana Marcos (2025). **Design concepts for advanced-technology intraocular lenses [Invited].** Biomedical Optics Express 16(1), 334-361. <https://doi.org/10.1364/boe.544647>
319. Zhenghua Lin; Dimitrios Christaras; Raul Duarte-Toledo; Zhikuan Yang; Augusto Arias; Weizhong Lan; Pablo Artal (2025). **Dynamic Accommodation Responses in Subjects Wearing Myopia Control Spectacles Modifying Peripheral Refraction.** Investigative Ophthalmology & Visual Science 66(1), 55. <https://doi.org/10.1167/iovs.66.1.55>
320. Shrikant R. Bharadwaj; Silvestre Manzanera; Pablo Artal (2025). **Eccentric Infrared Photorefractive: A Review of Evolution, Optical Design, Features and Applications.** Journal of Bio-optics 1(1), 4. [Review or perspective]. <https://doi.org/10.53941/jbiop.2025.100004>

321. Young LK; Kulcsár C; Hampson KM; Morris TJ; Booth MJ; Dubis A; Fernandez EJ; Hu Q; Mecê P; Meimon S; Neichel B; Osborn J; Sarunic MV; Townson MJ; Boffety M; Bouanani M; Lebrun S; Burcklen M-A; Clénet Y; Galland N; Jacobowicz L; de Jongh I; Lawton PF; Levraud N; Lognoné P; Papagiannouli I; Raynaud H-F; Artal P; Butterley T; Chambouleyron V; d'Orgeville C; Pircher M; Reeves AP (2025). **Five years of the European Adaptive Optics Summer School**. Asian Journal of Physics 33(5–6), A1–A13. https://scholar.google.es/citations?view_op=view_citation&hl=en&user=L2qYVBgAAAAJ&citation_for_view=L2qYVBgAAAAJ:DG0Btp6lGL8C *Year discrepancy: the publisher labels volume 33 as 2024; institutional repositories record publication in 2025. Listed under 2025 pending clarification.*
322. D Christaras; S Tsoukalas; A Pennos; H Ginis; P Artal (2025). **In-Vitro Methods for Comprehensive IOL Optical Performance Assessment**. Journal of Bio-optics 1(1), 2509001225. <https://doi.org/10.53941/jbiop.2025.100005>
323. S. Marcos; P. Artal; D. Gatinel; L. Lundström; G. Yoon; N. Lewis (2025). **Introduction to the Feature Issue Improving Vision through Intraocular Lenses: a tribute to Jim Schwiegerling**. Optics Express 33(7), 15485–15488. [Editorial]. <https://doi.org/10.1364/OE.561538>
324. Susana Marcos; Pablo Artal; Damien Gatinel; Linda Lundström; Geunyoung Yoon; Nathan Lewis (2025). **Introduction to the feature Issue “Improving Vision through Intraocular Lenses”: a tribute to Jim Schwiegerling**. Biomedical Optics Express 16(4), 1707–1710. [Editorial]. <https://doi.org/10.1364/boe.561537>
325. Pablo Artal; Irene Rodríguez-Fernández; Inés Yago; Jose M Marín; Alba M Paniagua-Díaz (2025). **Optical correction in excised cataractous crystalline lenses by using wavefront shaping techniques**. Biomedical Optics Express 16(10), 3936–3948. <https://doi.org/10.1364/boe.571198>
326. Jesús E Gómez-Correa; Brian Vohnsen; Barbara K Pierścione; Sabino Chávez-Cerda; Sabine Kling; Jos J Rozema; Raymond A Applegate; Giuliano Scarcelli; J Bradley Randleman; Alexander V Goncharov; Amy Fitzpatrick; Jessica I W Morgan; Austin Roorda; David A Atchison; Juan P Trevino; Alejandra Consejo; Charlie Börjeson; Linda Lundström; Seung Pil Bang; Geunyoung Yoon; Karol Karnowski; Bartłomiej J Kaluzny; Ireneusz Grulkowski; Sergio Barbero; Pablo Artal; Juan Tabernero; Pete Kollbaum; Stéphanie C Thébault (2025). **Roadmap on advances in visual and physiological optics**. Journal of Optics 27(12), 123001. [Review or perspective]. <https://doi.org/10.1088/2040-8986/ae1bb8>
327. Linus Emmerich; Pedro Gil; Silvestre Manzanera; Juan Tabernero; Pablo Artal; Christina Schwarz (2025). **Seeing nonspectral colors with single wavelength stimulation in two-photon vision**. Biomedical Optics Express 16(11), 4767–4776. <https://doi.org/10.1364/boe.575139>
328. Miriam Casares-López; Sonia Ortiz-Peregrina; José J Castro-Torres; Rosario G Anera; Consuelo Robles; Lucía Hervella; Encarna Alcon; José M Marín; Pablo Artal (2025). **The influence of peripheral vision on driving performance in patients implanted with an inverted meniscus intraocular lens**. Scientific Reports 15(1), 9727. <https://doi.org/10.1038/s41598-025-93840-6>
329. Susana Marcos; Pablo Artal; Linda Lundström; Geunyoung Yoon (2025). **Visual simulation of intraocular lenses: technologies and applications [Invited]**. Biomedical Optics Express 16(3), 1025–1042. <https://doi.org/10.1364/boe.546971>
330. A Vicente-Jaén; J Mompeán; JL Aragón; P Artal (2025). **VolRec: 4D real-time volumetric reconstruction of OCT data**. The Journal of Supercomputing 81(3), 472. <https://doi.org/10.1007/s11227-025-06969-6>
331. P Artal (2025). **Welcome to the Journal of Bio-optics (JBiOp)**. Journal of Bio-optics 1(1), 1. [Editorial]. <https://doi.org/10.53941/jbiop.2025.100001>

2026

332. Johannes Zeilinger; Paul Regitnig; Martin Kronschräger; Manuel Ruiss; Pablo Artal; Juan Tabernero; Sophie Maedel; Oliver Findl (2026). **Comparison of decentration, tilt, and dynamic stability between retropupillary iris claw and scleral fixated intraocular lenses with flanged haptics**. Journal of Cataract & Refractive Surgery. <https://doi.org/10.1097/j.jcrs.0000000000001975>
333. Spyridon Tsoukalas; Alexandros Pennos; Clara Bonel Pla; Anastasios Charonis; Pablo Artal; Harilaos Ginis; Dimitrios Christaras (2026). **Dynamic Tear Film Stability Assessed via an Open-View Double-Pass Imaging System**. Ophthalmic and Physiological Optics 46(5), 1188–1195. <https://doi.org/10.1007/s44402-026-00156-7>
334. Santiago Sager; Pedro M Prieto; Pablo Artal (2026). **Effect of spherical aberration on the vergence-accommodation conflict**. Biomedical Optics Express 17(4), 1782–1793. <https://doi.org/10.1364/boe.593240>
335. Z Lin; X Xi; L Wen; Z Luo; P Artal; Z Yang; W Lan (2026). **Erratum in: Relative Myopic Defocus in the Superior Retina as an Indicator of Myopia Development in Children**. Investigative Ophthalmology & Visual Science 67(2), 11. [Correction]. <https://doi.org/10.1167/iovs.67.2.11>
336. Clara García-Pedreño; Juan Tabernero; Harilaos Ginis; Lucía Hervella; Pablo Artal (2026). **Halo assessment in intraocular lenses through high dynamic range images**. Journal of Cataract & Refractive Surgery 52(3), 296–302. <https://doi.org/10.1097/j.jcrs.0000000000001860>

337. Zhenghua Lin; Dimitrios Christaras; Harilaos Ginis; Zhikuan Yang; Weizhong Lan; Pablo Artal (2026). **Impact of Myopia Control Spectacles on Retinal Image Contrast**. *Investigative Ophthalmology & Visual Science* 67(4), 34. <https://doi.org/10.1167/iov.67.4.34>
338. Simon Winter; Chang Liu; Zhenghua Lin; Pablo Artal; Weizhong Lan; Len Zheleznyak (2026). **Optical quality and anisotropy across the retina of Chinese children's eyes**. *Journal of the Optical Society of America A* 43(1), 77-85. <https://doi.org/10.1364/josaa.576403>
339. RA Ramírez-Ramírez; S Manzanera; AG Regadera; P Artal (2026). **Predicting two-photon retinal sensitivity from visible-light measurements**. *Biomedical Optics Express* 17(11), 5623-5637. <https://doi.org/10.1364/boe.614093>
340. Tithi Bhakta; Ketakee Jain; Priyanka Sudanabonia; Santiago Sager; Adrian Gambin; Pablo Artal; Shrikant R Bharadwaj (2026). **Reduced Image Quality Impairs Monocular Blur-Driven Accommodation in Keratoconus**. *Investigative Ophthalmology & Visual Science* 67(6), 52. <https://doi.org/10.1167/iov.67.6.52>
341. Xinyu Wang; Silvestre Manzanera; Juan Tabernero; Pablo Artal (2026). **Stiles-Crawford effect in infrared two-photon vision**. *Biomedical Optics Express* 17(1), 217-226. <https://doi.org/10.1364/boe.581133>