

# David Mas

## List of Publications by Year in descending order

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79  
papers

1,227  
citations

430442

18  
h-index

395343

33  
g-index

80  
all docs

80  
docs citations

80  
times ranked

793  
citing authors

#	ARTICLE	IF	CITATIONS
1	Fast algorithms for free-space diffraction patterns calculation. Optics Communications, 1999, 164, 233-245.	1.0	226
2	Fractional wavelet transform. Applied Optics, 1997, 36, 4801.	2.1	111
3	Fractional-Fourier-transform calculation through the fast-Fourier-transform algorithm. Applied Optics, 1996, 35, 7013.	2.1	91
4	Fast numerical calculation of Fresnel patterns in convergent systems. Optics Communications, 2003, 227, 245-258.	1.0	78
5	Three-dimensional object recognition by Fourier transform profilometry. Applied Optics, 1999, 38, 4760.	2.1	53
6	Nonlinear morphological correlation: optoelectronic implementation. Applied Optics, 1998, 37, 2112.	2.1	40
7	Optical Analysis of PresbyLASIK Treatment By a Light Propagation Algorithm. Journal of Refractive Surgery, 2007, 23, 39-44.	1.1	40
8	Measurement of wide frequency range structural microvibrations with a pocket digital camera and sub-pixel techniques. Applied Optics, 2012, 51, 2664.	0.9	33
9	Vibration frequency measurement using a local multithreshold technique. Optics Express, 2013, 21, 26198.	1.7	32
10	Wavelength-multiplexing system for single-mode image transmission. Applied Optics, 1997, 36, 8474.	2.1	29
11	Resolution limits to object tracking with subpixel accuracy. Optics Letters, 2012, 37, 4877.	1.7	24
12	Optical surface reconstruction technique through combination of zonal and modal fitting. Journal of Biomedical Optics, 2010, 15, 1.	1.4	22
13	Pseudoaccommodation and Visual Acuity With Technovision PresbyLASIK and a Theoretical Simulated Array <sup>®</sup> Multifocal Intraocular Lens. Journal of Refractive Surgery, 2008, 24, 344-349.	1.1	22
14	Noninvasive measurement of eye retraction during blinking. Optics Letters, 2010, 35, 1884.	1.7	20
15	Ultrasonic In Vivo Measurement of Ocular Surface Expansion. IEEE Transactions on Biomedical Engineering, 2011, 58, 674-680.	2.5	20
16	Pupil detection and tracking for analysis of fixational eye micromovements. Optik, 2012, 123, 11-15.	1.4	20
17	Realistic limits for subpixel movement detection. Applied Optics, 2016, 55, 4974.	2.1	20
18	Repeatability and reproducibility of corneal thickness using SOCT Copernicus HR. Australasian journal of optometry, The, 2013, 96, 278-285.	0.6	19

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19	Methods and algorithms for video-based multi-point frequency measuring and mapping. Measurement: Journal of the International Measurement Confederation, 2016, 85, 164-174.	2.5	19
20	Three dimensional analysis of chromatic aberration in diffractive elements with extended depth of focus. Optics Express, 2007, 15, 17842.	1.7	18
21	Correlation between the dioptric power, astigmatism and surface shape of the anterior and posterior corneal surfaces. Ophthalmic and Physiological Optics, 2009, 29, 219-226.	1.0	15
22	Blinking characterization from high speed video records. Application to biometric authentication. PLoS ONE, 2018, 13, e0196125.	1.1	15
23	Blinking kinematics description through non-invasive measurement. Journal of Modern Optics, 2011, 58, 1857-1863.	0.6	14
24	Targetless image-based method for measuring displacements and strains on concrete surfaces with a consumer camera. Construction and Building Materials, 2015, 75, 213-219.	3.2	14
25	Refractive analysis of the human cornea through propagated fields. Journal of Modern Optics, 2001, 48, 811-829.	0.6	13
26	Complete algorithm for the calculation light patterns inside the ocular media. Journal of Modern Optics, 2005, 52, 1161-1176.	0.6	11
27	A high-resolution binocular video-oculography system: assessment of pupillary light reflex and detection of an early incomplete blink and an upward eye movement. BioMedical Engineering OnLine, 2015, 14, 22.	1.3	11
28	From Fresnel patterns to fractional Fourier transform through geometrical optics. Optical Engineering, 2000, 39, 1427.	0.5	10
29	Corneal primary aberrations compensation by oblique light incidence. Journal of Biomedical Optics, 2009, 14, 044003.	1.4	9
30	Optical Scanning for Structural Vibration Measurement. Research in Nondestructive Evaluation, 2011, 22, 61-75.	0.5	9
31	Novel image processing approach to detect malaria. Optics Communications, 2015, 350, 13-18.	1.0	9
32	Near-field light distributions propagated from human corneas: Determination of relevant patterns. Journal of Modern Optics, 2003, 50, 1335-1352.	0.6	8
33	Method for targetless tracking subpixel in-plane movements. Applied Optics, 2015, 54, 7760.	2.1	8
34	Parametric Study of the Errors Obtained from the Measurement of the Oscillating Movement of a Bridge Using Image Processing. Journal of Nondestructive Evaluation, 2016, 35, 1.	1.1	8
35	Non-Contact Smartphone-Based Monitoring of Thermally Stressed Structures. Sensors, 2018, 18, 1250.	2.1	8
36	Scale corrections for faster evaluation of convergent Fresnel patterns. Journal of Modern Optics, 2006, 53, 259-266.	0.6	7

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37	Corneal Stability following Hyperopic LASIK with Advanced Laser Ablation Profiles Analyzed by a Light Propagation Study. <i>Journal of Ophthalmology</i> , 2018, 2018, 1-10.	0.6	7
38	Optical analysis of presbyLASIK treatment by a light propagation algorithm. <i>Journal of Refractive Surgery</i> , 2007, 23, 39-44.	1.1	7
39	Growth and allocation of resources in economics: The agent-based approach. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2006, 370, 86-90.	1.2	6
40	Geometrical approximations for accurate evaluation of refraction in the human cornea. <i>Optik</i> , 2007, 118, 209-215.	1.4	6
41	Custom designed dynamic videokeratometer. <i>Journal of Modern Optics</i> , 2010, 57, 94-102.	0.6	6
42	Use of High-Quality and Common Commercial Mirrors for Scanning Close-Range Surfaces Using 3D Laser Scanners: A Laboratory Experiment. <i>Remote Sensing</i> , 2017, 9, 1152.	1.8	6
43	Parametric Evaluation of Errors Using Isolated Dots for Movement Measurement by Image Cross-Correlation. <i>Sensors</i> , 2018, 18, 525.	2.1	6
44	Long-term corneal multifocal stability following a presbyLASIK technique analysed by a light propagation algorithm. <i>Australasian journal of optometry</i> , The, 2019, 102, 496-500.	0.6	6
45	Comparative analysis of spontaneous blinking and the corneal reflex. <i>Royal Society Open Science</i> , 2020, 7, 201016.	1.1	6
46	Optoelectronic implementation of the triple correlation. <i>Optics Letters</i> , 1997, 22, 1018.	1.7	5
47	Weighted Zernike polynomial fitting in steep corneas sampled in Cartesian grid. <i>Journal of Modern Optics</i> , 2011, 58, 1710-1715.	0.6	5
48	Retinal image quality assessment through a visual similarity index. <i>Journal of Modern Optics</i> , 2013, 60, 544-550.	0.6	5
49	Image processing for safety assessment in civil engineering. <i>Applied Optics</i> , 2013, 52, 4385.	0.9	5
50	A method to measure small local strains in concrete surfaces using its natural texture and image cross-correlation. <i>Structural Control and Health Monitoring</i> , 2019, 26, e2410.	1.9	5
51	Influence of Neighborhood Size and Cross-Correlation Peak-Fitting Method on Location Accuracy. <i>Sensors</i> , 2020, 20, 6596.	2.1	5
52	Fresnel-based analysis of Kasprzak's crystalline model: statistical results and individual predictions. <i>Optik</i> , 2005, 116, 49-57.	1.4	4
53	Adaptive sampling in convergent beams. <i>Optics Letters</i> , 2008, 33, 1960.	1.7	4
54	Fractional triple correlation and its applications. <i>Journal of the Optical Society of America A: Optics and Image Science, and Vision</i> , 1998, 15, 1658.	0.8	3

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55	High speed image techniques for construction safety net monitoring in outdoor conditions. Proceedings of SPIE, 2012, , .	0.8	3
56	Open-access operating algorithms for commercial videokeratographer and improvement of corneal sampling. Applied Optics, 2013, 52, C24.	0.9	3
57	Dynamic contour tonometry vs. non-contact tonometry and their relation with corneal thickness. Optik, 2016, 127, 3912-3917.	1.4	3
58	Use of Image Correlation to Measure Macroscopic Strains by Hygric Swelling in Sandstone Rocks. Applied Sciences (Switzerland), 2021, 11, 2495.	1.3	3
59	Short communication Fresnel diffraction in a theoretical eye: a fractional Fourier transform approach. Journal of Modern Optics, 1999, 46, 1043-1050.	0.6	2
60	Influence of ocular dominance in the variability of the eye's anterior segment measurements. Optik, 2010, 121, 2221-2223.	1.4	2
61	Three-dimensional planar object tracking with sub-pixel accuracy. Optik, 2015, 126, 2684-2689.	1.4	2
62	Fresnel diffraction calculation through the fast fractional Fourier transform. , 1998, 3490, 461.		1
63	Determination of chromatic aberration in the human eye by means of Fresnel propagation theory. , 2005, , .		1
64	Propagation and phase reconstruction of ocular wavefronts with SAR techniques. Journal of Modern Optics, 2008, 55, 717-725.	0.6	1
65	Analysis of keratoscopic images for detecting fixational eye movements and ocular surface deformation. , 2009, , .		1
66	Vibration measurement through high speed vision system in a civil structure under impact loading. , 2014, , .		1
67	Real size experiments of a car crash against a building column. , 2010, , .		1
68	DOE-based wavelength multiplexing system for a single-mode image transmission. , 1997, 3110, 442.		0
69	Objective quality criterions to determinate the best image plane in highly deformed human corneas. , 2003, 4829, 1017.		0
70	Numerical calculation of the corneal transmittance. , 2003, 4829, 1019.		0
71	Use of subpixel techniques in pocket cameras to measure vibrations and displacements. Proceedings of SPIE, 2012, , .	0.8	0
72	Corneal topography reinterpretation through separate analysis of the projected rings. Proceedings of SPIE, 2012, , .	0.8	0

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73	Propagation, structural similarity, and image quality. , 2012, , .		0
74	Low cost subpixel method for vibration measurement. , 2014, , .		0
75	Use of Costas arrays in subpixel metrology. Proceedings of SPIE, 2014, , .	0.8	0
76	Measuring the effective focal length and shape factor of a thick lens using a microscope. Optik, 2015, 126, 1965-1969.	1.4	0
77	Bisector-Based Tracking of In Plane Subpixel Translations and Rotations. Applied Sciences (Switzerland), 2017, 7, 835.	1.3	0
78	OPTICS AND PHOTONICS INNOVATIVE EDUCATION NETWORKING: SYNERGIES BETWEEN UNIVERSITIES AROUND LEARNING. INTED Proceedings, 2016, , .	0.0	0
79	A step forward. Optica Pura Y Aplicada, 2017, 50, i-ii.	0.0	0