Changhuei Yang

List of Publications by Year in Descending Order

155 papers	10,851 citations	48 h-index	102 g-index
180 ext. papers	13,980 ext. citations	6.3 avg, IF	6.58 L-index

#	Paper	IF	Citations
155	Stain-free detection of embryo polarization using deep learning.. *Scientific Reports*, **2022**, 12, 2404	4.9	1
154	Speckle-resolved optical coherence tomography for mesoscopic imaging within scattering media.. *Biomedical Optics Express*, **2022**, 13, 2068-2081	3.5	
153	Neurophotonic tools for microscopic measurements and manipulation: status report.. *Neurophotonics*, **2022**, 9, 013001	3.9	0
152	Optical information transmission through complex scattering media with optical-channel-based intensity streaming. *Nature Communications*, **2021**, 12, 2411	17.4	3
151	Non-iterative complex wave-field reconstruction based on Kramers–Kronig relations. *Photonics Research*, **2021**, 9, 1003	6	9
150	Feasibility and safety study of a high resolution wide field-of-view scanning endoscope for circumferential intraluminal intestinal imaging. *Scientific Reports*, **2021**, 11, 3544	4.9	
149	Concept, implementations and applications of Fourier ptychography. *Nature Reviews Physics*, **2021**, 3, 207-223	23.6	52
148	Diffusing wave spectroscopy: A unified treatment on temporal sampling and speckle ensemble methods. *APL Photonics*, **2021**, 6, 016105	5.2	5
147	Fluorescence imaging through dynamic scattering media with speckle-encoded ultrasound-modulated light correlation. *Nature Photonics*, **2020**, 14, 511-516	33.9	20
146	Investigating ultrasound-light interaction in scattering media. *Journal of Biomedical Optics*, **2020**, 25, 1-12	3.5	5
145	Single-shot surface 3D imaging by optical coherence factor. *Optics Letters*, **2020**, 45, 1734-1737	3	3
144	Imaging through highly scattering human skulls with ultrasound-modulated optical tomography. *Optics Letters*, **2020**, 45, 2973-2976	3	4
143	Interferometric speckle visibility spectroscopy (ISVS) for human cerebral blood flow monitoring. *APL Photonics*, **2020**, 5, 126102	5.2	7
142	Method to Determine Syringe Silicone Oil Layer Heterogeneity and Investigation of its Impact on Product Particle Counts. *Journal of Pharmaceutical Sciences*, **2020**, 109, 3292-3299	3.9	2
141	Parallel Fourier ptychographic microscopy for high-throughput screening with 96 cameras (96 Eyes). *Scientific Reports*, **2019**, 9, 11114	4.9	17
140	Computational aberration correction of VIS-NIR multispectral imaging microscopy based on Fourier ptychography. *Optics Express*, **2019**, 27, 24923-24937	3.3	11
139	Computational aberration compensation by coded-aperture-based correction of aberration obtained from optical Fourier coding and blur estimation. *Optica*, **2019**, 6, 647-661	8.6	17

138	Wavefront shaping with disorder-engineered metasurfaces. *Nature Photonics*, **2018**, 12, 84-90	33.9	150
137	Time-reversed ultrasonically encoded optical focusing through highly scattering ex vivo human cataractous lenses. *Journal of Biomedical Optics*, **2018**, 23, 1-4	3.5	5
136	Wide-angular-range and high-resolution beam steering by a metasurface-coupled phased array. *Optics Letters*, **2018**, 43, 5255-5258	3	22
135	Fourier Ptychographic Microscopy for Rapid, High-Resolution Imaging of Circulating Tumor Cells Enriched by Microfiltration. *Methods in Molecular Biology*, **2017**, 1634, 107-117	1.4	1
134	Deep tissue optical focusing and optogenetic modulation with time-reversed ultrasonically encoded light. *Science Advances*, **2017**, 3, eaao5520	14.3	40
133	Focusing light inside scattering media with magnetic-particle-guided wavefront shaping. *Optica*, **2017**, 4, 1337-1343	8.6	28
132	study of optical speckle decorrelation time across depths in the mouse brain. *Biomedical Optics Express*, **2017**, 8, 4855-4864	3.5	34
131	Imaging moving targets through scattering media. *Optics Express*, **2017**, 25, 3935-3945	3.3	35
130	Focusing light through scattering media by transmission matrix inversion. *Optics Express*, **2017**, 25, 27234-27246	3.3	66
129	Analyzing the relationship between decorrelation time and tissue thickness in acute rat brain slices using multispeckle diffusing wave spectroscopy. *Journal of the Optical Society of America A: Optics and Image Science, and Vision*, **2016**, 33, 270-5	1.8	17
128	Diffraction tomography with Fourier ptychography. *Optica*, **2016**, 3, 827-835	8.6	122
127	Glare suppression by coherence gated negation. *Optica*, **2016**, 3, 1107-1113	8.6	4
126	Aperture scanning Fourier ptychographic microscopy. *Biomedical Optics Express*, **2016**, 7, 3140-50	3.5	22
125	Motion-corrected Fourier ptychography. *Biomedical Optics Express*, **2016**, 7, 4543-4553	3.5	20
124	Wide-field Fourier ptychographic microscopy using laser illumination source. *Biomedical Optics Express*, **2016**, 7, 4787-4802	3.5	40
123	Quantitative phase imaging and complex field reconstruction by pupil modulation differential phase contrast. *Optics Express*, **2016**, 24, 25345-25361	3.3	26
122	Fourier ptychographic reconstruction using Poisson maximum likelihood and truncated Wirtinger gradient. *Scientific Reports*, **2016**, 6, 27384	4.9	45
121	Optical phase conjugation assisted scattering lens: variable focusing and 3D patterning. *Scientific Reports*, **2016**, 6, 23494	4.9	16

120	Wide field-of-view fluorescence image deconvolution with aberration-estimation from Fourier ptychography. *Biomedical Optics Express*, **2016**, 7, 352-68	3.5	34
119	Incubator embedded cell culture imaging system (EmSight) based on Fourier ptychographic microscopy. *Biomedical Optics Express*, **2016**, 7, 3097-110	3.5	22
118	Translation correlations in anisotropically scattering media. *Nature Physics*, **2015**, 11, 684-689	16.2	110
117	Solving ptychography with a convex relaxation. *New Journal of Physics*, **2015**, 17,	2.9	62
116	Relation between speckle decorrelation and optical phase conjugation (OPC)-based turbidity suppression through dynamic scattering media: a study on in vivo mouse skin. *Biomedical Optics Express*, **2015**, 6, 72-85	3.5	51
115	A wide field-of-view scanning endoscope for whole anal canal imaging. *Biomedical Optics Express*, **2015**, 6, 607-14	3.5	3
114	Focusing through dynamic tissue with millisecond digital optical phase conjugation. *Optica*, **2015**, 2, 728-735	8.5	134
113	High numerical aperture Fourier ptychography: principle, implementation and characterization. *Optics Express*, **2015**, 23, 3472-91	3.3	111
112	Physically secure and fully reconfigurable data storage using optical scattering **2015**,		4
111	Guidestar-assisted wavefront-shaping methods for focusing light into biological tissue. *Nature Photonics*, **2015**, 9, 563-571	33.9	300
110	Digital pathology with Fourier ptychography. *Computerized Medical Imaging and Graphics*, **2015**, 42, 38-43	3.6	44
109	Counting White Blood Cells from a Blood Smear Using Fourier Ptychographic Microscopy. *PLoS ONE* , **2015**, 10, e0133489	3.7	42
108	Optical focusing inside scattering media with time-reversed ultrasound microbubble encoded light. *Nature Communications*, **2015**, 6, 8968	17.4	34
107	Optofluidic ultrahigh-throughput detection of fluorescent drops. *Lab on A Chip*, **2015**, 15, 1417-23	7.2	47
106	Advances in optics for biotechnology, medicine and surgery. *Biomedical Optics Express*, **2014**, 5, 560-1	3.5	
105	Microfluidic-integrated laser-controlled microactuators with on-chip microscopy imaging functionality. *Lab on A Chip*, **2014**, 14, 3781-9	7.2	19
104	A high-efficiency microfluidic device for size-selective trapping and sorting. *Lab on A Chip*, **2014**, 14, 2480-90	7.2	36
103	A smartphone-based chip-scale microscope using ambient illumination. *Lab on A Chip*, **2014**, 14, 3056-63	7.2	117

102	Viral plaque analysis on a wide field-of-view, time-lapse, on-chip imaging platform. *Analyst, The*, **2014**, 139, 3727-34	5	6
101	Modeling Extensions of Fourier Ptychographic Microscopy. *Microscopy and Microanalysis*, **2014**, 20, 370-371	3.5	2
100	Iterative time-reversed ultrasonically encoded light focusing in backscattering mode. *Scientific Reports*, **2014**, 4, 7156	4.9	26
99	Fourier ptychographic microscopy for filtration-based circulating tumor cell enumeration and analysis. *Journal of Biomedical Optics*, **2014**, 19, 066007	3.5	47
98	Overlapped Fourier coding for optical aberration removal. *Optics Express*, **2014**, 22, 24062-80	3.3	28
97	Method for auto-alignment of digital optical phase conjugation systems based on digital propagation. *Optics Express*, **2014**, 22, 14054-71	3.3	42
96	Focusing on moving targets through scattering samples. *Optica*, **2014**, 1, 227-232	8.6	86
95	Model for estimating the penetration depth limit of the time-reversed ultrasonically encoded optical focusing technique. *Optics Express*, **2014**, 22, 5787-807	3.3	15
94	A phase space model of Fourier ptychographic microscopy. *Optics Express*, **2014**, 22, 338-58	3.3	45
93	Embedded pupil function recovery for Fourier ptychographic microscopy. *Optics Express*, **2014**, 22, 4960-72	3.3	193
92	Axial standing-wave illumination frequency-domain imaging (SWIF). *Optics Express*, **2014**, 22, 11001-10	3.3	7
91	Diffusion model for ultrasound-modulated light. *Journal of Biomedical Optics*, **2014**, 19, 35005	3.5	6
90	Imaging and identification of waterborne parasites using a chip-scale microscope. *PLoS ONE*, **2014**, 9, e89712	3.7	28
89	Wide-field, high-resolution Fourier ptychographic microscopy. *Nature Photonics*, **2013**, 7, 739-745	33.9	784
88	0.5 gigapixel microscopy using a flatbed scanner. *Biomedical Optics Express*, **2013**, 5, 1-8	3.5	33
87	Speckle-scale focusing in the diffusive regime with time-reversal of variance-encoded light (TROVE). *Nature Photonics*, **2013**, 7, 300-305	33.9	164
86	Wide field-of-view on-chip Talbot fluorescence microscopy for longitudinal cell culture monitoring from within the incubator. *Analytical Chemistry*, **2013**, 85, 2356-60	7.8	23
85	Chip-scale fluorescence microscope based on a silo-filter complementary metal-oxide semiconductor image sensor. *Optics Letters*, **2013**, 38, 1817-9	3	15

84	Optical phase conjugation (OPC)-assisted isotropic focusing. *Optics Express*, **2013**, 21, 8781-92	3.3	14
83	Wide field-of-view Talbot grid-based microscopy for multicolor fluorescence imaging. *Optics Express*, **2013**, 21, 14555-65	3.3	19
82	Characterization of spatially varying aberrations for wide field-of-view microscopy. *Optics Express*, **2013**, 21, 15131-43	3.3	51
81	Physical key-protected one-time pad. *Scientific Reports*, **2013**, 3, 3543	4.9	62
80	Quantitative phase imaging via Fourier ptychographic microscopy. *Optics Letters*, **2013**, 38, 4845-8	3	188
79	On-chip continuous monitoring of motile microorganisms on an ePetri platform. *Lab on A Chip*, **2012**, 12, 2385-90	7.2	30
78	Digital optical phase conjugation of fluorescence in turbid tissue. *Applied Physics Letters*, **2012**, 101, 81108	3.4	90
77	Deep-tissue focal fluorescence imaging with digitally time-reversed ultrasound-encoded light. *Nature Communications*, **2012**, 3, 928	17.4	238
76	Markov speckle for efficient random bit generation. *Optics Express*, **2012**, 20, 26394-410	3.3	8
75	Wide and scalable field-of-view Talbot-grid-based fluorescence microscopy. *Optics Letters*, **2012**, 37, 5018-20	3	22
74	Quantitative surface normal measurement by a wavefront camera. *Optics Letters*, **2012**, 37, 199-201	3	1
73	Fluorescence microscopy imaging with a Fresnel zone plate array based optofluidic microscope. *Lab on A Chip*, **2011**, 11, 3698-702	7.2	41
72	Subpixel resolving optofluidic microscope based on super resolution algorithm **2011**,		3
71	Focal plane tuning in wide-field-of-view microscope with Talbot pattern illumination. *Optics Letters*, **2011**, 36, 2179-81	3	18
70	Microscopy refocusing and dark-field imaging by using a simple LED array. *Optics Letters*, **2011**, 36, 3987-9	3	85
69	The ePetri dish, an on-chip cell imaging platform based on subpixel perspective sweeping microscopy (SPSM). *Proceedings of the National Academy of Sciences of the United States of America*, **2011**, 108, 16889-94	11.5	138
68	Color-capable sub-pixel resolving optofluidic microscope for on-chip cell imaging **2011**,		1
67	Color capable sub-pixel resolving optofluidic microscope and its application to blood cell imaging for malaria diagnosis. *PLoS ONE*, **2011**, 6, e26127	3.7	49

66	Surface-wave-enabled darkfield aperture for background suppression during weak signal detection. *Proceedings of the National Academy of Sciences of the United States of America*, **2010**, 107, 9043-8	11.5	29
65	Implementation of a color-capable optofluidic microscope on a RGB CMOS color sensor chip substrate. *Lab on A Chip*, **2010**, 10, 411-4	7.2	32
64	Implementation of a digital optical phase conjugation system and its application to study the robustness of turbidity suppression by phase conjugation. *Optics Express*, **2010**, 18, 3444-55	3.3	207
63	Focus grid generation by in-line holography. *Optics Express*, **2010**, 18, 14366-74	3.3	1
62	Pixel level optical-transfer-function design based on the surface-wave-interferometry aperture. *Optics Express*, **2010**, 18, 16499-506	3.3	3
61	Wavefront image sensor chip. *Optics Express*, **2010**, 18, 16685-701	3.3	25
60	Wide field-of-view microscope based on holographic focus grid illumination. *Optics Letters*, **2010**, 35, 2188-90	3	26
59	Improving weak-signal identification via predetection background suppression by a pixel-level, surface-wave enabled dark-field aperture. *Optics Letters*, **2010**, 35, 2636-8	3	9
58	An in vivo study of turbidity suppression by optical phase conjugation (TSOPC) on rabbit ear. *Optics Express*, **2010**, 18, 25-30	3.3	138
57	Sub-pixel resolving optofluidic microscope for on-chip cell imaging. *Lab on A Chip*, **2010**, 10, 3125-9	7.2	93
56	Observation of polarization-gate based reconstruction quality improvement during the process of turbidity suppression by optical phase conjugation. *Applied Physics Letters*, **2009**, 95, 123702	3.4	17
55	The application of on-chip optofluidic microscopy for imaging Giardia lamblia trophozoites and cysts. *Biomedical Microdevices*, **2009**, 11, 951-8	3.7	34
54	Manual-scanning optical coherence tomography probe based on position tracking. *Optics Letters*, **2009**, 34, 3400-2	3	17
53	Characterization of acceptance angles of small circular apertures. *Optics Express*, **2009**, 17, 23903-13	3.3	2
52	OPTICAL PHASE CONJUGATION FOR TURBIDITY SUPPRESSION IN BIOLOGICAL SAMPLES. *Nature Photonics*, **2008**, 2, 110-115	33.9	422
51	Fundamental sensitivity limit imposed by dark 1/f noise in the low optical signal detection regime. *Optics Express*, **2008**, 16, 6822-32	3.3	14
50	The application of Fresnel zone plate based projection in optofluidic microscopy. *Optics Express*, **2008**, 16, 15595-602	3.3	21
49	Lensless high-resolution on-chip optofluidic microscopes for Caenorhabditis elegans and cell imaging. *Proceedings of the National Academy of Sciences of the United States of America*, **2008**, 105, 10670-5	11.5	226

48	Quantitative differential interference contrast microscopy based on structured-aperture interference. *Applied Physics Letters*, **2008**, 93, 091113	3.4	13
47	Images of spinal nerves and adjacent structures with optical coherence tomography: preliminary animal studies. *Journal of Pain*, **2007**, 8, 767-73	5.2	15
46	Molecular Contrast Optical Coherence Tomography: A Review¶. *Photochemistry and Photobiology*, **2007**, 81, 215-237	3.6	4
45	Full field phase imaging using a harmonically matched diffraction grating pair based homodyne quadrature interferometer. *Applied Physics Letters*, **2007**, 90, 151123	3.4	8
44	Interference of a four-hole aperture for on-chip quantitative two-dimensional differential phase imaging. *Optics Letters*, **2007**, 32, 2963-5	3	9
43	A generalized noise variance analysis model and its application to the characterization of 1/f noise. *Optics Express*, **2007**, 15, 3833-48	3.3	8
42	SNR enhancement through phase dependent signal reconstruction algorithms for phase separated interferometric signals. *Optics Express*, **2007**, 15, 10103-22	3.3	1
41	Mobility and transverse flow visualization using phase variance contrast with spectral domain optical coherence tomography. *Optics Express*, **2007**, 15, 12636-53	3.3	172
40	Electromagnetic equivalent model for phase conjugate mirror based on the utilization of left-handed material. *Optics Express*, **2007**, 15, 13877-85	3.3	3
39	2-D PSTD Simulation of optical phase conjugation for turbidity suppression. *Optics Express*, **2007**, 15, 16005-16	3.3	14
38	An optical tweezer actuated, nanoaperture-grid based Optofluidic Microscope implementation method. *Optics Express*, **2007**, 15, 16367-75	3.3	6
37	Harmonically matched grating-based full-field quantitative high-resolution phase microscope for observing dynamics of transparent biological samples. *Optics Express*, **2007**, 15, 18141-55	3.3	4
36	Molecular contrast optical coherence tomography: A pump-probe scheme using indocyanine green as a contrast agent. *Journal of Biomedical Optics*, **2006**, 11, 054017	3.5	19
35	Optofluidic microscopy--a method for implementing a high resolution optical microscope on a chip. *Lab on A Chip*, **2006**, 6, 1274-6	7.2	190
34	Paired-angle-rotation scanning optical coherence tomography forward-imaging probe. *Optics Letters*, **2006**, 31, 1265-7	3	82
33	Homodyne en face optical coherence tomography. *Optics Letters*, **2006**, 31, 1815-7	3	10
32	Slanted hole array beam profiler (SHArP)-a high-resolution portable beam profiler based on a linear aperture array. *Optics Letters*, **2006**, 31, 3161-3	3	5
31	Harmonically-related diffraction gratings-based interferometer for quadrature phase measurements. *Optics Express*, **2006**, 14, 8127-37	3.3	9

30	Characterization of light collection through a subwavelength aperture from a point source. *Optics Express*, **2006**, 14, 10410-25	3.3	22
29	Developing optofluidic technology through the fusion of microfluidics and optics. *Nature*, **2006**, 442, 381-6	50.4	1385
28	Frequency estimation precision in Doppler optical coherence tomography using the Cramer-Rao lower bound. *Optics Express*, **2005**, 13, 410-6	3.3	57
27	Instantaneous complex conjugate resolved spectral domain and swept-source OCT using 3x3 fiber couplers. *Optics Express*, **2005**, 13, 957-67	3.3	115
26	Theoretical comparison of the sensitivity of molecular contrast optical coherence tomography techniques. *Optics Express*, **2005**, 13, 8146-63	3.3	18
25	Spectral-domain phase microscopy. *Optics Letters*, **2005**, 30, 1162-4	3	263
24	Spectral domain optical coherence tomography: a better OCT imaging strategy. *BioTechniques*, **2005**, 39, S6-13	2.5	156
23	Molecular contrast optical coherence tomography: SNR comparison of techniques and introduction of ground state recovery pump-probe OCT **2005**,		1
22	Pump-probe scheme for optical coherence tomography using indocyanine green mixed with albumin or human plasma **2005**,		2
21	Molecular Contrast Optical Coherence Tomography: A Review¶. *Photochemistry and Photobiology*, **2005**, 81, 215	3.6	59
20	Molecular contrast optical coherence tomography: a review. *Photochemistry and Photobiology*, **2005** , 81, 215-37	3.6	19
19	Amplification of optical delay by use of matched linearly chirped fiber Bragg gratings. *Optics Letters* , **2004**, 29, 685-7	3	5
18	Protein-based molecular contrast optical coherence tomography with phytochrome as the contrast agent. *Optics Letters*, **2004**, 29, 1396-8	3	51
17	Spectral triangulation molecular contrast optical coherence tomography with indocyanine green as the contrast agent. *Optics Letters*, **2004**, 29, 2016-8	3	64
16	Polarization-resolved second-harmonic-generation optical coherence tomography in collagen. *Optics Letters*, **2004**, 29, 2252-4	3	48
15	Fourier-domain low-coherence interferometry for light-scattering spectroscopy. *Optics Letters*, **2003**, 28, 1230-2	3	72
14	Instantaneous quadrature low-coherence interferometry with 3 x 3 fiber-optic couplers. *Optics Letters*, **2003**, 28, 2162-4	3	95
13	Sensitivity advantage of swept source and Fourier domain optical coherence tomography. *Optics Express*, **2003**, 11, 2183-9	3.3	1324

12	In situ detection of neoplastic transformation and chemopreventive effects in rat esophagus epithelium using angle-resolved low-coherence interferometry. *Cancer Research*, **2003**, 63, 3556-9	10.1	72
11	2pi ambiguity-free optical distance measurement with subnanometer precision with a novel phase-crossing low-coherence interferometer. *Optics Letters*, **2002**, 27, 77-9	3	15
10	Cellular organization and substructure measured using angle-resolved low-coherence interferometry. *Biophysical Journal*, **2002**, 82, 2256-64	2.9	157
9	Measurement of the anomalous phase velocity of ballistic light in a random medium by use of a novel interferometer. *Optics Letters*, **2001**, 26, 235-7	3	13
8	Measurement of angular distributions by use of low-coherence interferometry for light-scattering spectroscopy. *Optics Letters*, **2001**, 26, 322-4	3	40
7	Phase-dispersion optical tomography. *Optics Letters*, **2001**, 26, 686-8	3	26
6	Phase-referenced interferometer with subwavelength and subhertz sensitivity applied to the study of cell membrane dynamics. *Optics Letters*, **2001**, 26, 1271-3	3	77
5	Phase-Referenced Interferometer with Subwavelength and Subhertz Sensitivity. *Optics and Photonics News*, **2001**, 12, 36	1.9	2
4	Feasibility of field-based light scattering spectroscopy. *Journal of Biomedical Optics*, **2000**, 5, 138-43	3.5	20
3	Interferometric phase-dispersion microscopy. *Optics Letters*, **2000**, 25, 1526-8	3	58
2	Quantum trajectory analysis of a thresholdlike transition in the microlaser. *Physical Review A*, **1997**, 55, 4492-4500	2.6	10
1	Cavity ring-down technique and its application to the measurement of ultraslow velocities. *Optics Letters*, **1995**, 20, 1068	3	52