Tomas Cizmar

List of Publications by Year
in descending order

158	7,121	76326	74163
papers	citations	40 h-index	75 g-index

162	162	162	4750
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Endoscopic Imaging Using a Multimode Optical Fibre Calibrated with Multiple Internal References. Photonics, 2022, 9, 37.	2.0	6
2	Suppression of the non-linear background in a multimode fibre CARS endoscope. Biomedical Optics Express, 2022, 13, 862.	2.9	3
3	Near perfect focusing through multimode fibres. Optics Express, 2022, 30, 10645.	3.4	12
4	3D imaging through a single optical fiber. , 2022, , .		1
5	Hybrid multimode - multicore fibre based holographic endoscope for deep-tissue neurophotonics. Light Advanced Manufacturing, 2022, 3, 1.	5.1	7
6	Neurophotonic Tools for Microscopic Measurements and Manipulation: Status Report. Neurophotonics, 2022, 9, 013001.	3.3	17
7	CARS Microscopy Through a Multimode Fiber Probe with Reduced Four-Wave Mixing Background. , 2022, , .		0
8	Observing distant objects with a multimode fiber-based holographic endoscope. APL Photonics, 2021, 6, .	5.7	47
9	All-optical manipulation of photonic membranes. Optics Express, 2021, 29, 14260.	3.4	6
10	Compressively sampling the optical transmission matrix of a multimode fibre. Light: Science and Applications, 2021, 10, 88.	16.6	49
11	Memory effect assisted imaging through multimode optical fibres. Nature Communications, 2021, 12, 3751.	12.8	58
12	Side-view holographic endomicroscopy via a custom-terminated multimode fibre. Optics Express, 2021, 29, 23083.	3.4	10
13	Time-averaged image projection through a multimode fiber. Optics Express, 2021, 29, 28005.	3.4	2
14	Polarization-resolved second-harmonic generation imaging through a multimode fiber. Optica, 2021, 8, 1065.	9.3	17
15	Computational image enhancement of multimode fibre-based holographic endo-microscopy: harnessing the muddy modes. Optics Express, 2021, 29, 38206.	3.4	8
16	Thermal stability of wavefront shaping using a DMD as a spatial light modulator. Optics Express, 2021, 29, 41808.	3.4	7
17	Excitation Polarization Resolved Second Harmonic Generation Microscopy Through a Multimode Optical Fiber. , 2021, , .		0
18	Suppressing the Non-linear Fiber Background in Multimode Fiber Endoscopy. , 2021, , .		0

#	Article	IF	Citations
19	Time-of-flight 3D imaging through multimode optical fibers. Science, 2021, 374, 1395-1399.	12.6	66
20	Non-linear label-free imaging through a multimode graded index optical fibre. EPJ Web of Conferences, 2020, 238, 04006.	0.3	0
21	Digital holographic endo-microscopes based on multimode fibres. , 2020, , .		0
22	Digital holographic endo-microscopes based on multimode fibres. , 2020, , .		0
23	Label-free non-linear imaging through a multimode fiberendoscope. , 2020, , .		0
24	Multimode fibre probe calibration. EPJ Web of Conferences, 2020, 238, 02007.	0.3	0
25	Transport properties of optical fibres with high numerical apertures. , 2020, , .		0
26	Wavelength dependent characterization of a multimode fibre endoscope. Optics Express, 2019, 27, 28239.	3.4	15
27	Label-free CARS microscopy through a multimode fiber endoscope. Optics Express, 2019, 27, 30055.	3.4	54
28	Nanobore fiber focus trap with enhanced tuning capabilities. Optics Express, 2019, 27, 36221.	3.4	5
29	Time of Flight Based 3D Imaging Through Multimode Optical Fibres. , 2019, , .		0
30	Nano-bore fiber focus trap with enhanced performance. , 2019, , .		0
31	Towards focusing broad band light through a multimode fiber endoscope. , 2019, , .		1
32	Multimode fiber transmission matrix obtained with internal references. , 2019, , .		1
33	Exploiting digital micromirror device for holographic micro-endoscopy. , 2019, , .		2
34	Three-dimensional holographic optical manipulation through a high-numerical-aperture soft-glass multimode fibre. Nature Photonics, 2018, 12, 33-39.	31.4	121
35	High-fidelity multimode fibre-based endoscopy for deep brain in vivo imaging. Light: Science and Applications, 2018, 7, 92.	16.6	211
36	Subcellular spatial resolution achieved for deep-brain imaging in vivo using a minimally invasive multimode fiber. Light: Science and Applications, 2018, 7, 110.	16.6	118

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37	Holographic Optical Tweezers at the Tip of a Needle. , 2018, , .		1
38	Liquid-Crystal and MEMS Modulators for Beam-Shaping Through Multimode Fibre. , 2018, , .		1
39	Robustness of Light-Transport Processes to Bending Deformations in Graded-Index Multimode Waveguides. Physical Review Letters, 2018, 120, 233901.	7.8	86
40	Imaging Beyond a Multimode Fibre with Time of Flight Depth Information. , 2018, , .		0
41	Comparison of nematic liquid-crystal and DMD based spatial light modulation in complex photonics. Optics Express, 2017, 25, 29874.	3.4	95
42	High-speed Polarisation Shaping of Arbitrary Vector Beams Using a Digital Micro-mirror Device. , 2017, , .		0
43	A biophotonics platform based on optical trapping of photonic membranes. , 2017, , .		0
44	High-speed spatial control of the intensity, phase and polarisation of vector beams using a digital micro-mirror device. Optics Express, 2016, 24, 29269.	3.4	101
45	All-optical manipulation of photonic membranes. , 2016, , .		0
46	Untangled modes in multimode waveguides. , 2016, , .		0
47	Multimode fibres for micro-endoscopy. Optofluidics, Microfluidics and Nanofluidics, 2015, 2, .	0.5	4
48	Multimode fibre: Light-sheet microscopy at the tip of a needle. Scientific Reports, 2015, 5, 18050.	3.3	46
49	Airy Beams for Light-sheet Microscopy. Microscopy and Microanalysis, 2015, 21, 1723-1724.	0.4	2
50	GPU accelerated holography for multimode fiber applications. Proceedings of SPIE, 2015, , .	0.8	0
51	Multimode fibres: a pathway towards deep-tissue fluorescence microscopy. Proceedings of SPIE, 2015, , .	0.8	0
52	Compact multimode fiber beam-shaping system based on GPU accelerated digital holography. Optics Letters, 2015, 40, 197.	3.3	35
53	Seeing through chaos in multimode fibres. Nature Photonics, 2015, 9, 529-535.	31.4	406
54	Fibre-based imaging: new challenges. , 2015, , .		0

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55	Untangled modes in multimode fibres for flexible microendoscopy. , 2015, , .		0
56	Femtosecond optical injection of intact plant cells using a reconfigurable platform. , 2014, , .		1
57	Light-sheet microscopy using an Airy beam. Nature Methods, 2014, 11, 541-544.	19.0	679
58	GPU accelerated toolbox for real-time beam-shaping in multimode fibres. Optics Express, 2014, 22, 2933.	3.4	56
59	Holographic display system for restoration of sight to the blind. Journal of Neural Engineering, 2013, 10, 056021.	3.5	29
60	Experimental demonstration of optical transport, sorting and self-arrangement using a â€˜tractor beamâ€™. Nature Photonics, 2013, 7, 123-127.	31.4	296
61	Exploiting multimode waveguides for pure fibre based fluorescence imaging. , 2013, , .		0
62	Increasing the resolution of light sheet microscopy in the presence of aberrations. Proceedings of SPIE, 2013, , .	0.8	1
63	Single laser beam based passive optical sorter. , 2013, , .		1
64	Experimental demonstration of optical transport, sorting and self arrangement using a "tractor beam". , 2013, , .		1
65	The role of propagation invariant light modes in single and multi-photon imaging. , 2013, , .		0
66	Optical manipulation, beam-shaping and scanner-free bright-ï¬eld and dark-ï¬eld imaging via multimode optical ï¬bre. , 2013, , .		0
67	Femtosecond Optoinjection of Intact Tobacco BY-2 Cells Using a Reconfigurable Photoporation Platform. PLoS ONE, 2013, 8, e79235.	2.5	11
68	Behaviour of self-arranged chain of colloidal particles in a travelling standing wave. Proceedings of SPIE, 2012, , .	0.8	0
69	Optical sorting of gold nanoparticles based on the red-shift of plasmon resonance. Proceedings of SPIE, 2012, , .	0.8	0
70	Exploiting multimode waveguides for pure fibre-based imaging. Nature Communications, 2012, 3, 1027.	12.8	450
71	Multimode fibre as a light mode convertor: principles and applications. , 2012, , .		0
72	Manipulation and control of light in multimode fibres. , 2012, , .		0

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73	Speed enhancement of multi-particle chain in a traveling standing wave. Applied Physics Letters, 2012, 100, 051103.	3.3	17
74	Wavefront corrected light sheet microscopy in turbid media. Applied Physics Letters, 2012, 100, .	3.3	30
75	Faster optical delivery of self-arranged multi-particle cluster. , 2012, , .		0
76	Bidirectional Optical Sorting of Gold Nanoparticles. Nano Letters, 2012, 12, 1923-1927.	9.1	124
77	10.1063/1.3680234.1. , 2012, , .		0
78	Numerical investigation of passive optical sorting of plasmon nanoparticles. Optics Express, 2011, 19, 13922.	3.4	12
79	Shaping the light transmission through a multimode optical fibre: complex transformation analysis and applications in biophotonics. Optics Express, 2011, 19, 18871.	3.4	292
80	Modelling of optical trapping. , 2011, , .		0
81	Shaping the future of manipulation. Nature Photonics, 2011, 5, 335-342.	31.4	848
82	The holographic optical micro-manipulation system based on counter-propagating beams. Laser Physics Letters, 2011, 8, 50-56.	1.4	87
83	Advanced optical manipulation with tailored counter-propagating laser beams. Proceedings of SPIE, 2011, , .	0.8	0
84	Dynamic size tuning of multidimensional optically bound matter. Applied Physics Letters, 2011, 99, 101105.	3.3	32
85	Interference-free superposition of nonzero order light modes: Functionalized optical landscapes. Applied Physics Letters, 2011, 98, 081114.	3.3	10
86	Spatially optimized gene transfection by laser-induced breakdown of optically trapped nanoparticles. Applied Physics Letters, 2011, 98, .	3.3	39
87	Demonstration of multi-dimensional optical binding in counter-propagating laser beams with variable beam properties. , 2011, , .		0
88	Optical sculpting: trapping through disorder and transfer of orbital angular momentum. Proceedings of SPIE, 2011, , .	0.8	0
89	Passive optical sorting of plasmon nanoparticles: Numerical investigation of optimal illumination. , 2011, , .		0
90	10.1063/1.3554415.1. , 2011, , .		1

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91	SHAPING THE FUTURE OF NANOBIOPHOTONICS. , 2011, , .		0
92	Optimal focusing In Situ: new routes for optical trapping and Biophotonics. , 2011, , .		0
93	Optical Sculpting: trapping through disorder. , 2011, , .		0
94	Flexible dual-beam geometry for advanced optical micromanipulation experiments. , 2010, , .		0
95	Optical Sculpting: Shaping the Future of Biophotonic. , 2010, , .		0
96	In situ wavefront correction and its application to micromanipulation. Nature Photonics, 2010, 4, 388-394.	31.4	390
97	Formation of one-dimensional optically bound structures of polystyrene particles near the surface. Proceedings of SPIE, 2010, , .	0.8	0
98	In situ wavefront optimization: towards the ideal performance of a biophotonics system. Proceedings of SPIE, 2010, , .	0.8	0
99	Optical path clearing and enhanced transmission through colloidal suspensions. Optics Express, 2010, 18, 17130.	3.4	48
100	Experimental and theoretical determination of optical binding forces. Optics Express, 2010, 18, 25389.	3.4	60
101	Multiple optical trapping and binding: new routes to self-assembly. Journal of Physics B: Atomic, Molecular and Optical Physics, 2010, 43, 102001.	1.5	135
102	Realization of curved Bessel beams: propagation around obstructions. Journal of Optics (United) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 3	2.2	42
103	Optical Sculpting: Changing The Shape of Micromanipulation. , 2010, , .		0
104	Axial intensity shaping of a Bessel beam. , 2009, , .		2
105	Accelerating vortices in Airy beams. Proceedings of SPIE, 2009, , .	0.8	31
106	Automated laser guidance of neuronal growth cones using a spatial light modulator. Journal of Biophotonics, 2009, 2, 682-692.	2.3	20
107	Propagation characteristics of Airy beams: dependence upon spatial coherence and wavelength. Optics Express, 2009, 17, 13236.	3.4	103
108	Tunable Bessel light modes: engineering the axial propagation. Optics Express, 2009, 17, 15558.	3.4	150

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109	Supercontinuum Airy beams. , 2009, , .		3
110	Transport of multi-particle clusters by motional standing wave optical traps. , 2009, , .		0
111	Optically bound chain of microparticles. , 2009, , .		0
112	Static optical sorting in a laser interference field. Applied Physics Letters, 2008, 92, .	3.3	54
113	A dual beam photonic crystal fiber trap for microscopic particles. Applied Physics Letters, 2008, 93, 041110.	3.3	42
114	Optical micromanipulation using supercontinuum Laguerre-Gaussian and Gaussian beams. Optics Express, 2008, 16, 10117.	3.4	28
115	High quality quasi-Bessel beam generated by round-tip axicon. Optics Express, 2008, 16, 12688.	3.4	288
116	Generation of multiple Bessel beams for a biophotonics workstation. Optics Express, 2008, 16, 14024.	3.4	88
117	Fibre based cellular transfection. Optics Express, 2008, 16, 17007.	3.4	45
118	Novel dual beam fiber traps using endlessly single-mode photonic crystal fiber. Proceedings of SPIE, 2008, , .	0.8	0
119	Generation and control of multiple Bessel beams for optical micromanipulation. , 2008, , .		3
120	Stability and dynamics of self-arranged structures in longitudinal optical binding. Proceedings of SPIE, 2008, , .	0.8	0
121	Surface delivery of a single nanoparticle under moving evanescent standing-wave illumination. New Journal of Physics, 2008, 10, 113010.	2.9	33
122	Laser beam interference and its applications in optical micromanipulation. Proceedings of SPIE, 2008, , .	0.8	0
123	Long-Range One-Dimensional Longitudinal Optical Binding. Physical Review Letters, 2008, 101, 143601.	7.8	116
124	Delivery of multiparticle chains by an optical conveyor belt. , 2008, , .		0
125	Polarisation distribution for internal conical diffraction and the superposition of zero and first order Bessel beams. , 2008, , .		1
126	One-dimensional long-range self-arranged optically bound structures. , 2008, , .		0

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127	Optically bound chain of microparticles. , 2008, , .		0
128	Quasi-Bessel beam generated by oblate-tip axicon. Proceedings of SPIE, 2008, , .	0.8	2
129	<title>How to use laser radiative and evanescent interference fields to control movement of the sub-micron objects</title>. , 2007, , .		0
130	<title>Manufacturing of extremely narrow polymer fibers by non-diffracting beams</title>. , 2007, , .		2
131	<title>Orbital angular momentum of mixed vortex beams</title>. Proceedings of SPIE, 2007, , .	0.8	9
132	Optical tracking of spherical micro-objects in spatially periodic interference fields. Optics Express, 2007, 15, 2262.	3.4	9
133	Cellular and Colloidal Separation Using Optical Forces. Methods in Cell Biology, 2007, 82, 467-495.	1.1	50
134	Optical sorting and detection of submicrometer objects in a motional standing wave. Physical Review B, 2006, 74, .	3.2	132
135	Sub-micron particle organization by self-imaging of non-diffracting beams. New Journal of Physics, 2006, 8, 43-43.	2.9	116
136	Formation of long and thin polymer fiber using nondiffracting beam. Optics Express, 2006, 14, 8506.	3.4	44
137	<title>Optical conveyor belt for delivery of sub-micron objects</title>. , 2006, , .		0
138	<title>Behavior of colloidal microparticles in interference field created by several laser beams</title>. , 2006, 6180, 511.		0
139	Optical interference fields: an excellent tool kit to study Brownian dynamics. , 2006, , .		0
140	Precise determination of object position in 1D optical lattice. , 2006, 6326, 549.		0
141	<title>Optical tracking of micro-objects within living cells</title>. , 2006, 6180, 466.		0
142	Static particle sorting in 1D optical lattice. , 2006, , .		1
143	Multistability of optically bound objects. , 2006, , .		0
144	Submicron-scale Brownian swimmer or surfer in one dimensional standing wave optical traps. , 2006, 6326, 645.		1

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145	HF plasma pencil and DC diaphragm discharge in liquids â€" diagnostics and applications. European Physical Journal D, 2006, 56, B1051-B1056.	0.4	16
146	An optical nanotrap array movable over a milimetre range. Applied Physics B: Lasers and Optics, 2006, 84, 197-203.	2.2	100
147	Optical forces generated by evanescent standing waves and their usage for sub-micron particle delivery. Applied Physics B: Lasers and Optics, 2006, 84, 157-165.	2.2	77
148	Non-diffracting beam synthesis used for optical trapping and delivery of sub-micron objects. , 2006, , .		1
149	Optical binding in non-diffracting beams. , 2006, , .		4
150	Narrow polymer fibers obtained as a combination of photopolymerization and non-diffracting beams. , 2006, , .		0
151	Combination of photopolymerization and optical micromanipulation techniques. , 2005, , .		0
152	Behavior of submicron colloids in two-dimensional optical lattice. , 2005, , .		1
153	Submicron particle localization using evanescent field. , 2005, , .		4
154	Optical conveyor belt based on Bessel beams. , 2005, , .		1
155	Behavior of microparticles in laser interference field. , 2005, , .		2
156	Sub-micron particle delivery using evanescent field. , 2005, 5958, 147.		0
157	Optical conveyor belt for delivery of submicron objects. Applied Physics Letters, 2005, 86, 174101.	3.3	194
158	Optical trapping in counter-propagating Bessel beams. , 2004, , .		29