

# Robert Prevedel

## List of Publications by Year in descending order

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51  
papers

4,329  
citations

201674

27  
h-index

254184

43  
g-index

63  
all docs

63  
docs citations

63  
times ranked

4633  
citing authors

#	ARTICLE	IF	CITATIONS
1	Comparing free-space and fiber-coupled detectors for Fabry-Pérot-based all-optical photoacoustic tomography. <i>Journal of Biomedical Optics</i> , 2022, 27, .	2.6	2
2	Improving the Sensitivity of Planar Fabry-Pérot Cavities via Adaptive Optics and Mode Filtering. <i>Advanced Optical Materials</i> , 2021, 9, 2001337.	7.3	7
3	AI-nanoparticle assisted ultra-deep three-photon microscopy in the <i>in vivo</i> mouse brain under 1300 nm excitation. <i>Materials Chemistry Frontiers</i> , 2021, 5, 3201-3208.	5.9	18
4	Deep learning-enhanced light-field imaging with continuous validation. <i>Nature Methods</i> , 2021, 18, 557-563.	19.0	75
5	Intravital mesoscopic fluorescence molecular tomography allows non-invasive <i>in vivo</i> monitoring and quantification of breast cancer growth dynamics. <i>Communications Biology</i> , 2021, 4, 556.	4.4	7
6	Cross-compensation of Zernike aberrations in Gaussian beam optics. <i>Optics Letters</i> , 2021, 46, 3480.	3.3	1
7	Adaptive optics enhanced sensitivity in Fabry-Pérot based photoacoustic tomography. <i>Photoacoustics</i> , 2021, 23, 100276.	7.8	10
8	High-resolution structural and functional deep brain imaging using adaptive optics three-photon microscopy. <i>Nature Methods</i> , 2021, 18, 1253-1258.	19.0	69
9	Mechanical mapping of mammalian follicle development using Brillouin microscopy. <i>Communications Biology</i> , 2021, 4, 1133.	4.4	21
10	Using migrating cells as probes to illuminate features in live embryonic tissues. <i>Science Advances</i> , 2020, 6, .	10.3	6
11	Recent progress and current opinions in Brillouin microscopy for life science applications. <i>Biophysical Reviews</i> , 2020, 12, 615-624.	3.2	84
12	Intestinal intermediate filament polypeptides in <i>C. elegans</i> : Common and isotype-specific contributions to intestinal ultrastructure and function. <i>Scientific Reports</i> , 2020, 10, 3142.	3.3	23
13	A 3D Brillouin microscopy dataset of the <i>in-vivo</i> zebrafish eye. <i>Data in Brief</i> , 2020, 30, 105427.	1.0	9
14	Brillouin microscopy: an emerging tool for mechanobiology. <i>Nature Methods</i> , 2019, 16, 969-977.	19.0	244
15	Instantaneous isotropic volumetric imaging of fast biological processes. <i>Nature Methods</i> , 2019, 16, 497-500.	19.0	89
16	Imaging mechanical properties of sub-micron ECM in live zebrafish using Brillouin microscopy. <i>Biomedical Optics Express</i> , 2019, 10, 1420.	2.9	57
17	Instantaneous isotropic volumetric imaging of fast biological processes. , 2019, , .		0
18	Longitudinal monitoring of <i>in-vivo</i> mice mammary tumor progression using intravital fluorescence tomography and optical coherence tomography. , 2019, , .		0

#	ARTICLE	IF	CITATIONS
19	Aggregation-Induced Emission Luminogen with Near-Infrared-II Excitation and Near-Infrared-I Emission for Ultradeep Intravital Two-Photon Microscopy. ACS Nano, 2018, 12, 7936-7945.	14.6	193
20	Comparing Two-Photon Excitation Modalities for Fast, Large-Scale Recording of Neuronal Activity in Rodents. , 2017, , .		1
21	Direct detection of a single photon by humans. Nature Communications, 2016, 7, 12172.	12.8	112
22	Fast volumetric calcium imaging across multiple cortical layers using sculpted light. Nature Methods, 2016, 13, 1021-1028.	19.0	158
23	Optimizing and extending light-sculpting microscopy for fast functional imaging in neuroscience. Biomedical Optics Express, 2015, 6, 353.	2.9	18
24	Whole-brain dynamics of neuronal circuits enabled by sculpted light and light field microscopy. , 2015, , .		0
25	Sculpted Light Microscopy for High-Speed Imaging of Neuronal Activity. , 2015, , .		0
26	Crossed-crystal scheme for femtosecond-pulsed entangled photon generation in periodically poled potassium titanyl phosphate. Physical Review A, 2014, 89, .	2.5	8
27	Simultaneous whole-animal 3D imaging of neuronal activity using light-field microscopy. Nature Methods, 2014, 11, 727-730.	19.0	672
28	Quantum computing on encrypted data. Nature Communications, 2014, 5, 3074.	12.8	96
29	Experimental three-photon quantum nonlocality under strict locality conditions. Nature Photonics, 2014, 8, 292-296.	31.4	104
30	Brain-wide 3D imaging of neuronal activity in Caenorhabditis elegans with sculpted light. Nature Methods, 2013, 10, 1013-1020.	19.0	293
31	Dispersion-cancelled biological imaging with quantum-inspired interferometry. Scientific Reports, 2013, 3, 1582.	3.3	32
32	Optimal linear optical implementation of a single-qubit damping channel. New Journal of Physics, 2012, 14, 033016.	2.9	26
33	Efficient quantum computing using coherent photon conversion. Nature, 2011, 478, 360-363.	27.8	122
34	Entanglement-Enhanced Classical Communication Over a Noisy Classical Channel. Physical Review Letters, 2011, 106, 110505.	7.8	28
35	Experimental investigation of the uncertainty principle in the presence of quantum memory and its application to witnessing entanglement. Nature Physics, 2011, 7, 757-761.	16.7	205
36	Classical analog for dispersion cancellation of entangled photons with local detection. Physical Review A, 2011, 84, .	2.5	12

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37	Chirped-pulse interferometry for dispersion-cancelled OCT. , 2011, , .		0
38	Entanglement-enhanced classical communication over a noisy classical channel. , 2011, , .		1
39	Logical independence and quantum randomness. New Journal of Physics, 2010, 12, 013019.	2.9	7
40	High-fidelity entanglement swapping with fully independent sources. Physical Review A, 2009, 79, .	2.5	77
41	High-fidelity transmission of entanglement over a high-loss free-space channel. Nature Physics, 2009, 5, 389-392.	16.7	165
42	Feasibility of 300km quantum key distribution with entangled states. New Journal of Physics, 2009, 11, 085002.	2.9	72
43	Experimental Realization of Dicke States of up to Six Qubits for Multiparty Quantum Networking. Physical Review Letters, 2009, 103, 020503.	7.8	211
44	Experimental realization of a quantum game on a one-way quantum computer. New Journal of Physics, 2007, 9, 205-205.	2.9	54
45	Time-Reversal and Super-Resolving Phase Measurements. Physical Review Letters, 2007, 98, 223601.	7.8	220
46	Experimental Realization of Deutsch's Algorithm in a One-Way Quantum Computer. Physical Review Letters, 2007, 98, 140501.	7.8	112
47	Experimental Demonstration of Decoherence-Free One-Way Information Transfer. Physical Review Letters, 2007, 99, 250503.	7.8	35
48	Photonic entanglement as a resource in quantum computation and quantum communication. Journal of the Optical Society of America B: Optical Physics, 2007, 24, 241.	2.1	20
49	High-speed linear optics quantum computing using active feed-forward. Nature, 2007, 445, 65-69.	27.8	300
50	Implementation and characterization of active feed-forward for deterministic linear optics quantum computing. Applied Physics B: Lasers and Optics, 2007, 89, 499-505.	2.2	6
51	Demonstration of a Simple Entangling Optical Gate and Its Use in Bell-State Analysis. Physical Review Letters, 2005, 95, 210504.	7.8	222