Emmanuel Bossy

List of Publications by Year
in descending order

72	2,808	185998 28	182168 51
papers	citations	h-index	g-index

72	72	72	2054
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Attenuation, scattering, and absorption of ultrasound in the skull bone. Medical Physics, 2011, 39, 299-307.	1.6	260
2	Three-dimensional simulations of ultrasonic axial transmission velocity measurement on cortical bone models. Journal of the Acoustical Society of America, 2004, 115, 2314-2324.	0.5	248
3	Controlling light in scattering media non-invasively using the photoacoustic transmission matrix. Nature Photonics, 2014, 8, 58-64.	15.6	215
4	Effect of bone cortical thickness on velocity measurements using ultrasonic axial transmission: A 2D simulation study. Journal of the Acoustical Society of America, 2002, 112, 297-307.	0.5	173
5	Three-dimensional simulation of ultrasound propagation through trabecular bone structures measured by synchrotron microtomography. Physics in Medicine and Biology, 2005, 50, 5545-5556.	1.6	153
6	Bidirectional axial transmission can improve accuracy and precision of ultrasonic velocity measurement in cortical bone: a validation on test materials. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2004, 51, 71-79.	1.7	122
7	Bone microstructure and elastic tissue properties are reflected in QUS axial transmission measurements. Ultrasound in Medicine and Biology, 2005, 31, 1225-1235.	0.7	121
8	An In Vitro Study of the Ultrasonic Axial Transmission Technique at the Radius: 1-MHz Velocity Measurements Are Sensitive to Both Mineralization and Intracortical Porosity. Journal of Bone and Mineral Research, 2004, 19, 1548-1556.	3.1	109
9	Comparison of three ultrasonic axial transmission methods for bone assessment. Ultrasound in Medicine and Biology, 2005, 31, 633-642.	0.7	105
10	In vivo Performance Evaluation of Bi-Directional Ultrasonic Axial Transmission for Cortical Bone Assessment. Ultrasound in Medicine and Biology, 2009, 35, 912-919.	0.7	82
11	Improving visibility in photoacoustic imaging using dynamic speckle illumination. Optics Letters, 2013, 38, 5188.	1.7	79
12	Mathematical Modeling in Photoacoustic Imaging of Small Absorbers. SIAM Review, 2010, 52, 677-695.	4.2	70
13	Photoacoustic generation by a gold nanosphere: From linear to nonlinear thermoelastics in the long-pulse illumination regime. Physical Review B, 2015, 92, .	1.1	66
14	Super-resolution photoacoustic fluctuation imaging with multiple speckle illumination. Optica, 2016, 3, 54.	4.8	60
15	Attenuation in trabecular bone: A comparison between numerical simulation and experimental results in human femur. Journal of the Acoustical Society of America, 2007, 122, 2469-2475.	0.5	59
16	Super-resolution photoacoustic imaging via flow-induced absorption fluctuations. Optica, 2017, 4, 1397.	4.8	52
17	Measurements of ultrasound velocity and attenuation in numerical anisotropic porous media compared to Biotâ€™s and multiple scattering models. Ultrasonics, 2014, 54, 1146-1154.	2.1	43
18	Fusion of conventional ultrasound imaging and acousto-optic sensing by use of a standard pulsed-ultrasound scanner. Optics Letters, 2005, 30, 744.	1.7	41

#	Article	IF	Citations
19	Transient optoelastography in optically diffusive media. Applied Physics Letters, 2007, 90, 174111.	1.5	39
20	Optical-resolution photoacoustic microscopy by use of a multimode fiber. Applied Physics Letters, 2013, 102, .	1.5	38
21	Influence of nanoscale temperature rises on photoacoustic generation: Discrimination between optical absorbers based on thermal nonlinearity at high frequency. Photoacoustics, 2015, 3, 20-25.	4.4	36
22	Photoacoustic imaging beyond the acoustic diffraction-limit with dynamic speckle illumination and sparse joint support recovery. Optics Express, 2017, 25, 4875.	1.7	35
23	Hybrid photoacoustic-fluorescence microendoscopy through a multimode fiber using speckle illumination. APL Photonics, 2019, 4, .	3.0	35
24	Reconstruction of the Optical Absorption Coefficient of a Small Absorber from the Absorbed Energy Density. SIAM Journal on Applied Mathematics, 2011, 71, 676-693.	0.8	34
25	Light focusing and two-dimensional imaging through scattering media using the photoacoustic transmission matrix with an ultrasound array. Optics Letters, 2014, 39, 2664.	1.7	34
26	Overcoming the acoustic diffraction limit in photoacoustic imaging by the localization of flowing absorbers. Optics Letters, 2017, 42, 4379.	1.7	33
27	Time reversal of photoacoustic waves. Applied Physics Letters, 2006, 89, 184108.	1.5	32
28	Compensating for visibility artefacts in photoacoustic imaging with a deep learning approach providing prediction uncertainties. Photoacoustics, 2021, 21, 100218.	4.4	31
29	Simulation of Ultrasound Propagation Through Three-Dimensional Trabecular Bone Structures: Comparison with Experimental Data. Japanese Journal of Applied Physics, 2006, 45, 6496-6500.	0.8	24
30	Photoacoustics with coherent light. Photoacoustics, 2016, 4, 22-35.	4.4	24
31	Single-shot hybrid photoacoustic-fluorescent microendoscopy through a multimode fiber with wavefront shaping. Biomedical Optics Express, 2020, 11, 5717.	1.5	24
32	A reconstruction algorithm for ultrasound-modulated diffuse optical tomography. Proceedings of the American Mathematical Society, 2014, 142, 3221-3236.	0.4	21
33	Super-resolution photoacoustic and ultrasound imaging with sparse arrays. Scientific Reports, 2020, 10, 4637.	1.6	21
34	Photoacoustic guidance of high intensity focused ultrasound with selective optical contrasts and time-reversal. Applied Physics Letters, 2009, 94, .	1.5	20
35	Photoacoustic-guided ultrasound therapy with a dual-mode ultrasound array. Journal of Biomedical Optics, 2012, 17, 061205.	1.4	20
36	Acousto-electromagnetic Tomography. SIAM Journal on Applied Mathematics, 2012, 72, 1592-1617.	0.8	20

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37	Improving photoacoustic-guided optical focusing in scattering media by spectrally filtered detection. Optics Letters, 2014, 39, 6054.	1.7	20
38	Towards new applications using capillary waveguides. Biomedical Optics Express, 2015, 6, 4619.	1.5	20
39	Optical-resolution photoacoustic imaging through thick tissue with a thin capillary as a dual optical-in acoustic-out waveguide. Applied Physics Letters, 2015, 106, .	1.5	20
40	Theoretical and Experimental Study of Photoacoustic Excitation of Silica-Coated Gold Nanospheres in Water. Journal of Physical Chemistry C, 2020, 124, 1088-1098.	1.5	20
41	Detection and discrimination of optical absorption and shear stiffness at depth in tissue-mimicking phantoms by transient optoelastography. Applied Physics Letters, 2009, 94, 154103.	1.5	19
42	In vivo uptake and cellular distribution of gold nanoshells in a preclinical model of xenografted human renal cancer. Gold Bulletin, 2013, 46, 257-265.	1.1	19
43	Accurate measurement of guided modes in a plate using a bidirectional approach. Journal of the Acoustical Society of America, 2014, 135, EL15-EL21.	0.5	19
44	Photoacoustic fluctuation imaging: theory and application to blood flow imaging. Optica, 2020, 7, 1495.	4.8	16
45	Simulations of ultrasound propagation in random arrangements of elliptic scatterers: Occurrence of two longitudinal waves. Journal of the Acoustical Society of America, 2013, 133, 643-652.	0.5	13
46	Numerical Methods for Ultrasonic Bone Characterization. , 2011, , 181-228.		13
47	Acousto-optical coherence tomography with a digital holographic detection scheme. Optics Letters, 2012, 37, 3216.	1.7	12
48	Mechanisms of attenuation and heating dissipation of ultrasound in the skull bone: Comparison between simulation models and experiments. , 2010, , .		11
49	Optimal Control of Coherent Light Scattering for Binary Decision Problems. Physical Review Letters, 2021, 127, 253902.	2.9	7
50	Optical memory effect in square multimode fibers. Optics Letters, 2021, 46, 4924.	1.7	4
51	Radiative transfer and diffusion limits for wave field correlations in locally shifted random media. Journal of Mathematical Physics, 2013, 54, .	0.5	3
52	A hybrid FDTD-Rayleigh integral computational method for the simulation of the ultrasound measurement of proximal femur. Ultrasonics, 2014, 54, 1197-1202.	2.1	3
53	A photoacoustic transmission matrix for deep optical imaging. SPIE Newsroom, 0, , .	0.1	3
54	2D numerical simulations of ultrasound propagation in random anisotropic media: Occurrence of two longitudinal waves in bone-like structures. , 2011, , .		2

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55	Multiple speckle illumination for optical-resolution photoacoustic imaging. Proceedings of SPIE, 2017, , .	0.8	2
56	Speckle based optical-resolution photoacoustic endoscopy (Conference Presentation). , 2018, , .		2
57	Imaging of optically diffusive media by use of opto-elastography. , 2007, , .		1
58	Combination of ultrasound and acousto-optical imaging using a pulsed-ultrasound scanner. , 2005, , .		0
59	Acousto-optic imaging in liquids: a step towards in-vivo measurements. , 2006, , .		0
60	Experimental investigation of time-reversal of photo-acoustic waves. , 2006, , .		0
61	Optical Imaging in Biological Tissue: Taking Advantage of the Light Coherence Properties. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2007, 2007, 520.	0.5	0
62	Discrimination of shear mechanical and optical contrasts in tissue phantoms by use of opto-elastography. Proceedings of SPIE, 2008, , .	0.8	0
63	Coupling of finite difference elastodynamic and semi-analytic Rayleigh integral codes for the modelling of ultrasound propagation at the hip. Proceedings of Meetings on Acoustics, 2013, , .	0.3	0
64	Enhanced Photoacoustic Imaging with Speckle Illumination. , 2014, , .		0
65	Bone Phantoms for the observation of the fast and slow waves. , 2015, , .		0
66	Breaking the acoustic diffraction limit in photoacoustic imaging with multiple speckle illumination. , 2016, , .		0
67	Full-field illumination approach with multiple speckle for optical-resolution photoacoustic microscopy (Conference Presentation). , 2016, , .		0
68	Fluorescence and optical-resolution photoacoustic imaging through capillary waveguides. , 2016, , .		0
69	Light Focusing and Imaging through Turbid Media Using the Photoacoustic Transmission-Matrix. , 2014, , .		0
70	Multimodal imaging through a multimode fiber. , 2019, , .		0
71	3D photoacoustic fluctuation imaging provides visibility artefacts removal and enhanced contrast. Simultaneous implementation with ultrasound doppler imaging. , 2021, , .		0
72	Correcting visibility artefacts in photoacoustic imaging with a deep learning approach. , 2021, , .		0