Luigi Bonacina

List of Publications by Year
in descending order

110 papers	2,732 citations	147566 31 h-index	205818 48 g-index
118 all docs	118 docs citations	118 times ranked	3076 citing authors

#	Article	IF	Citations
1	Circadian hepatocyte clocks keep synchrony in the absence of a master pacemaker in the suprachiasmatic nucleus or other extrahepatic clocks. Genes and Development, 2021, 35, 329-334.	2.7	56
2	Editorial: Use of 3D Models in Drug Development and Precision Medicine - Advances and Outlook. Frontiers in Bioengineering and Biotechnology, 2021, 9, 658941.	2.0	5
3	Energy-time-entangled two-photon molecular absorption. Physical Review A, 2021, 103, .	1.0	46
4	Ultrafast pulse shaping modulates perceived visual brightness in living animals. Science Advances, 2021, 7, .	4.7	2
5	CLEOÂ®/Europe-EQEC 2021, One Page Summary Template (Multi-order Nonlinear Mixing in Dielectric) Tj ETQq1 1 0.784314 rgBT /Overl		0
6	Photocontrolled Release of the Anticancer Drug Chlorambucil with Caged Harmonic Nanoparticles. Helvetica Chimica Acta, 2020, 103, e1900251.	1.0	21
7	Multiorder Nonlinear Mixing in Metal Oxide Nanoparticles. Nano Letters, 2020, 20, 8725-8732.	4.5	20
8	Dispersion of the nonlinear susceptibility of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi mathvariant="normal">MoS</mml:mi><mml:mn>2</mml:mn></mml:msub></mml:math> and <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi mathvariant="normal">WS</mml:mi><mml:mn>2</mml:mn></mml:msub></mml:math> from second-harmonic scattering spectroscopy. Physical Review B, 2020, 102, .	1.1	6
9	Harmonic generation at the nanoscale. Journal of Applied Physics, 2020, 127, .	1.1	65
10	Wavelength-Selective Nonlinear Imaging and Photo-Induced Cell Damage by Dielectric Harmonic Nanoparticles. ACS Nano, 2020, 14, 4087-4095.	7.3	13
11	Bismuth Ferrite Second Harmonic Nanoparticles for Pulmonary Macrophage Tracking. Small, 2019, 15, e1803776.	5.2	7
12	Two-Photon-Triggered Photorelease of Caged Compounds from Multifunctional Harmonic Nanoparticles. ACS Applied Materials & Interfaces, 2019, 11, 27443-27452.	4.0	24
13	Nonlinear plasmonic nanohybrids as probes for multimodal cell imaging and potential phototherapeutic agents. Biomedical Physics and Engineering Express, 2019, 5, 025039.	0.6	1
14	Second Harmonic Nanoparticles: Bismuth Ferrite Second Harmonic Nanoparticles for Pulmonary Macrophage Tracking (Small 4/2019). Small, 2019, 15, 1970024.	5.2	6
15	Second harmonic spectroscopy of ZnO, BiFeO₃ and LiNbO₃ nanocrystals. Optical Materials Express, 2019, 9, 1955.	1.6	24
16	Bismuth ferrite dielectric nanoparticles excited at telecom wavelengths as multicolor sources by second, third, and fourth harmonic generation. Nanoscale, 2018, 10, 8146-8152.	2.8	14
17	OncoCilAirâ„¢: A physiological in vitro platform to assess the efficacy and the toxicity of lung cancer therapeutics. Toxicology Letters, 2018, 295, S122.	0.4	1
18	Live cells assessment of opto-poration by a single femtosecond temporal Airy laser pulse. AIP Advances, 2018, 8, 125105.	0.6	9

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19	Image Correlation Spectroscopy with Second Harmonic Generating Nanoparticles in Suspension and in Cells. Journal of Physical Chemistry Letters, 2018, 9, 6112-6118.	2.1	10
20	Whiteâ€Fluorescent Dualâ€Emission Mechanosensitive Membrane Probes that Function by Bending Rather than Twisting. Angewandte Chemie, 2018, 130, 10719-10723.	1.6	22
21	Localized plasmonic fields of nanoantennas enhance second harmonic generation from two-dimensional molybdenum disulfide. MRS Communications, 2018, 8, 1029-1036.	0.8	6
22	Wavelength Dependence of the Second-Order Nonlinear Susceptibility of Harmonic Nanoparticles. , 2018, , .		0
23	Preparation from a revisited wet chemical route of phase-pure, monocrystalline and SHG-efficient BiFeO3 nanoparticles for harmonic bio-imaging. Scientific Reports, 2018, 8, 10473.	1.6	18
24	Whiteâ€Fluorescent Dualâ€Emission Mechanosensitive Membrane Probes that Function by Bending Rather than Twisting. Angewandte Chemie - International Edition, 2018, 57, 10559-10563.	7.2	67
25	Cell Poration of Fixed and Live Cells by Phase Shaped Femtosecond Pulses. NATO Science for Peace and Security Series B: Physics and Biophysics, 2018, , 399-400.	0.2	0
26	Dielectric Nanoparticles Excited at Telecom Wavelengths as Multiharmonic Multicolor Sources. , 2018, , .		0
27	Integrating plasmonic metals and 2D transition metal dichalcogenides for enhanced nonlinear frequency conversion. , 2018, , .		0
28	Real-time monitoring of bacterial and organic pollution in a water stream by fluorescence depletion spectroscopy. Applied Physics B: Lasers and Optics, 2017, 123, 1.	1.1	3
29	Multi-harmonic Imaging in the Second Near-Infrared Window of Nanoparticle-Labeled Stem Cells as a Monitoring Tool in Tissue Depth. ACS Nano, 2017, 11, 6672-6681.	7.3	53
30	Folate-modified silicon carbide nanoparticles as multiphoton imaging nanoprobes for cancer-cell-specific labeling. RSC Advances, 2017, 7, 27361-27369.	1.7	15
31	Health state dependent multiphoton induced autofluorescence in human 3D in vitro lung cancer model. Scientific Reports, 2017, 7, 16233.	1.6	10
32	Implications of short time scale dynamics on long time processes. Structural Dynamics, 2017, 4, 061507.	0.9	24
33	Nonlinear optical susceptibility of two-dimensional WS_2 measured by hyper Rayleigh scattering. Optics Letters, 2017, 42, 5018.	1.7	12
34	8 nm nanodiamonds as markers for 2 photon excited luminescent microscopy. Journal of Physics: Conference Series, 2016, 740, 012010.	0.3	2
35	Temporal Airy pulses control cell poration. APL Photonics, 2016, 1, 046102.	3.0	12
36	Multi-Order Investigation of the Nonlinear Susceptibility Tensors of Individual Nanoparticles. Scientific Reports, 2016, 6, 25415.	1.6	16

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37	Discriminating Bio-aerosols from Non-Bio-aerosols in Real-Time by Pump-Probe Spectroscopy. Scientific Reports, 2016, 6, 33157.	1.6	5
38	Sequential Proton Coupled Electron Transfer (PCET): Dynamics Observed over 8 Orders of Magnitude in Time. Journal of the American Chemical Society, 2016, 138, 4401-4407.	6.6	21
39	Nonlinear optical properties of silicon carbide (SiC) nanoparticles by carbothermal reduction. , 2016, , .		2
40	1300 nm Fiber Laser System for THG and 2PEF Bio-Imaging. , 2016, , .		2
41	Cellular uptake and biocompatibility of bismuth ferrite harmonic advanced nanoparticles. Nanomedicine: Nanotechnology, Biology, and Medicine, 2015, 11, 815-824.	1.7	33
42	Harmonic nanoparticles: noncentrosymmetric metal oxides for nonlinear optics. Journal of Optics (United Kingdom), 2015, 17, 033001.	1.0	36
43	Plasmonic Tipless Pyramid Arrays for Cell Poration. Nano Letters, 2015, 15, 4461-4466.	4.5	23
44	Simultaneous Multiharmonic Imaging of Nanoparticles in Tissues for Increased Selectivity. ACS Photonics, 2015, 2, 1416-1422.	3.2	34
45	Functionalized bismuth ferrite harmonic nanoparticles for cancer cells labeling and imaging. Journal of Nanoparticle Research, 2015, 17, 1.	0.8	12
46	Tailoring single-cycle electromagnetic pulses in the 2â€“9 THz frequency range using DAST/SiO_2 multilayer structures pumped at Ti:sapphire wavelength. Optics Express, 2014, 22, 21618.	1.7	3
47	Nonlinear optical and magnetic properties of BiFeO3 harmonic nanoparticles. Journal of Applied Physics, 2014, 116, .	1.1	32
48	Assessment of cytotoxicity and oxidative effect of Bismuth Ferrite (BFO) harmonic nanoparticles for localized DNA photo-interaction. , 2014, , .		0
49	Deep UV generation and direct DNA photo-interaction by harmonic nanoparticles in labelled samples. Nanoscale, 2014, 6, 2929-2936.	2.8	12
50	Harmonic Nanoparticles for Regenerative Research. Journal of Visualized Experiments, 2014, , .	0.2	1
51	Discriminability of tryptophan containing dipeptides using quantum control. Applied Physics B: Lasers and Optics, 2013, 111, 541-549.	1.1	7
52	Characterization of the nonlinear optical properties of nanocrystals by Hyper Rayleigh Scattering. Journal of Nanobiotechnology, 2013, 11, S8.	4.2	44
53	Nonlinear Nanomedecine: Harmonic Nanoparticles toward Targeted Diagnosis and Therapy. Molecular Pharmaceutics, 2013, 10, 783-792.	2.3	71
54	Convenient synthesis of heterobifunctional poly(ethylene glycol) suitable for the functionalization of iron oxide nanoparticles for biomedical applications. Bioorganic and Medicinal Chemistry Letters, 2013, 23, 5006-5010.	1.0	20

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55	Plasmon-enhanced nonlinear optical properties of SiC nanoparticles. Nanotechnology, 2013, 24, 055703.	1.3	27
56	Optimal Dynamic Discrimination in Tryptophan-Containing Dipeptides. EPJ Web of Conferences, 2013, 41, 07012.	0.1	0
57	Coherent Control of Biomolecules and Imaging Using Nanodoublers. NATO Science for Peace and Security Series B: Physics and Biophysics, 2013, , 251-269.	0.2	0
58	Label free optimal dynamic discrimination of biological macromolecules. Proceedings of SPIE, 2013, , .	0.8	0
59	Real-time recording of circadian liver gene expression in freely moving mice reveals the phase-setting behavior of hepatocyte clocks. Genes and Development, 2013, 27, 1526-1536.	2.7	126
60	A flash-lamp based device for fluorescence detection and identification of individual pollen grains. Review of Scientific Instruments, 2013, 84, 033302.	0.6	52
61	Harmonic nanoparticles for nonlinar bio-imaging and detection. Proceedings of SPIE, 2013, , .	0.8	0
62	Deep UV Strategy for Discriminating Biomolecules. NATO Science for Peace and Security Series B: Physics and Biophysics, 2013, , 393-394.	0.2	0
63	DAST/SiO_2 multilayer structure for efficient generation of 6ÂTHz quasi-single-cycle electromagnetic pulses. Optics Letters, 2012, 37, 2439.	1.7	10
64	Direct amplitude shaping of high harmonics in the extreme ultraviolet. Optics Express, 2012, 20, 25843.	1.7	7
65	DAST/SiO<inf>2</inf> multilayer structure for efficient generation of 6 THz quasi-single-cycle pulses via cascaded optical rectification. , 2012, , .		0
66	Coherent manipulation of free amino acids fluorescence. Physical Chemistry Chemical Physics, 2012, 14, 9317.	1.3	15
67	Highâ€Speed Tracking of Murine Cardiac Stem Cells by Harmonic Nanodoublers. Small, 2012, 8, 2752-2756.	5.2	34
68	Harmonic Nanoparticles: Highâ€Speed Tracking of Murine Cardiac Stem Cells by Harmonic Nanodoublers (Small 17/2012). Small, 2012, 8, 2614-2614.	5.2	0
69	Nonlinear Correlation Spectroscopy (NLCS). Nano Letters, 2012, 12, 1668-1672.	4.5	42
70	Harmonic Nanocrystals for Biolabeling: A Survey of Optical Properties and Biocompatibility. ACS Nano, 2012, 6, 2542-2549.	7.3	174
71	Ensemble and Individual Characterization of the Nonlinear Optical Properties of ZnO and BaTiO₃ Nanocrystals. Journal of Physical Chemistry C, 2011, 115, 15140-15146.	1.5	54
72	Spectral phase, amplitude, and spatial modulation from ultraviolet to infrared with a reflective MEMS pulse shaper. Optics Express, 2011, 19, 7580.	1.7	20

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73	Individual bioaerosol particle discrimination by multi-photon excited fluorescence. Optics Express, 2011, 19, 24516.	1.7	41
74	Shaping light with MOEMS. , 2011, , .		2
75	Discriminating Biomolecules with Coherent Control Strategies. Chimia, 2011, 65, 346.	0.3	7
76	Design, simulation, fabrication, packaging, and characterization of a MEMS-based mirror array for femtosecond pulse-shaping in phase and amplitude. Review of Scientific Instruments, 2011, 82, 075106.	0.6	10
77	Circadian Clocks in Mouse and Human CD4+ T Cells. PLoS ONE, 2011, 6, e29801.	1.1	156
78	High aspect ratio micromirror array with two degrees of freedom for femtosecond pulse shaping. Proceedings of SPIE, 2010, , .	0.8	5
79	Evanescent-Field-Induced Second Harmonic Generation by Noncentrosymmetric Nanoparticles. Optics Express, 2010, 18, 23218.	1.7	32
80	Ultraviolet and near-infrared femtosecond temporal pulse shaping with a new high-aspect-ratio one-dimensional micromirror array. Optics Letters, 2010, 35, 3102.	1.7	19
81	Mobile source of high-energy single-cycle terahertz pulses. Applied Physics B: Lasers and Optics, 2010, 101, 11-14.	1.1	66
82	Linear MEMS micromirror array for UV-NIR femtosecond pulse shaping. , 2010, , .		0
83	Linear micromirror array for broadband femtosecond pulse shaping in phase and amplitude. Proceedings of SPIE, 2009, , .	0.8	1
84	MEMS for femtosecond pulse shaping applications. , 2009, , .		1
85	Characterization of a MEMS-based pulse-shaping device inÂtheÂdeep ultraviolet. Applied Physics B: Lasers and Optics, 2009, 96, 757-761.	1.1	27
86	An inexpensive nonlinear medium for intense ultrabroadband pulse characterization. Applied Physics B: Lasers and Optics, 2009, 97, 537-540.	1.1	9
87	Filament-induced birefringence in Argon. Laser Physics, 2009, 19, 336-341.	0.6	5
88	Nanodoublers as deep imaging markers for multi-photon microscopy. Optics Express, 2009, 17, 15342.	1.7	71
89	Large linear micromirror array for UV femtosecond laser pulse shaping. , 2008, , .		2
90	Generation of 30 Î¼J single-cycle terahertz pulses at 100 Hz repetition rate by optical rectification. Optics Letters, 2008, 33, 2497.	1.7	141

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91	Ultrafast gaseous â€œhalf-wave plateâ€• Optics Express, 2008, 16, 7564.	1.7	44
92	Nano-FROG: Frequency resolved optical gating by a nanometric object. Optics Express, 2008, 16, 10405.	1.7	45
93	Identification of biological microparticles using ultrafast depletion spectroscopy. Faraday Discussions, 2008, 137, 37-49.	1.6	18
94	Effects of atmospheric turbulence on remote optimal control experiments. Applied Physics Letters, 2008, 92, 041103.	1.5	7
95	Multiobjective genetic approach for optimal control of photoinduced processes. Physical Review A, 2007, 76, .	1.0	32
96	32TW atmospheric white-light laser. Applied Physics Letters, 2007, 90, 151106.	1.5	34
97	TW lasers in air: ultra-high powers and optimal control strategies. Proceedings of SPIE, 2007, , .	0.8	0
98	Polar Fe(IO3)3 nanocrystals as local probes for nonlinear microscopy. Applied Physics B: Lasers and Optics, 2007, 87, 399-403.	1.1	98
99	Femtosecond Lidar and Coherent Control. , 2007, , .		0
100	Time-Resolved Photodynamics of Triangular-Shaped Silver Nanoplates. Nano Letters, 2006, 6, 7-10.	4.5	88
101	The ultrafast structural response of solid parahydrogen: A complementary experimental/simulation investigation. Journal of Chemical Physics, 2006, 125, 054507.	1.2	18
102	Optimal control of filamentation in air. Applied Physics Letters, 2006, 89, 171117.	1.5	50
103	Lattice Response of Quantum Solids to an Impulsive Local Perturbation. Physical Review Letters, 2005, 95, 015301.	2.9	20
104	Time-Resolved Visible and Infrared Study of the Cyano Complexes of Myoglobin and of Hemoglobin I from Lucina pectinata. Biophysical Journal, 2004, 87, 1881-1891.	0.2	68
105	Ultrafast structural dynamics in electronically excited solid neon. I.â€ƒReal-time probing of the electronic bubble formation. Physical Review B, 2003, 67, .	1.1	25
106	Structural dynamics in quantum solids. II. Real-time probing of the electronic bubble formation in solid hydrogens. Journal of Chemical Physics, 2002, 116, 4553-4562.	1.2	19
107	Ultrafast expansion and vibrational coherences of electronic `Bubbles' in solid neon. Chemical Physics Letters, 2002, 362, 31-38.	1.2	37
108	Dynamics of a coherently driven micromaser by the Monte Carlo wavefunction approach. Journal of Optics B: Quantum and Semiclassical Optics, 2000, 2, 490-496.	1.4	3

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109	Gd3+-Functionalized Lithium Niobate Nanoparticles for Dual Multiphoton and Magnetic Resonance Bioimaging. ACS Applied Nano Materials, 0, , .	2.4	5
110	Photoresponsive Nanocarriers Based on Lithium Niobate Nanoparticles for Harmonic Imaging and On-Demand Release of Anticancer Chemotherapeutics. ACS Nanoscience Au, 0, , .	2.0	1