

# Alexandre Locquet

## List of Publications by Year in descending order

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105  
papers

2,219  
citations

257450

24  
h-index

233421

45  
g-index

106  
all docs

106  
docs citations

106  
times ranked

1097  
citing authors

#	ARTICLE	IF	CITATIONS
1	Time-Delay Identification in a Chaotic Semiconductor Laser With Optical Feedback: A Dynamical Point of View. <i>IEEE Journal of Quantum Electronics</i> , 2009, 45, 879-1891.	1.9	191
2	Loss of time-delay signature in the chaotic output of a semiconductor laser with optical feedback. <i>Optics Letters</i> , 2007, 32, 2960.	3.3	190
3	Nondestructive evaluation of forced delamination in glass fiber-reinforced composites by terahertz and ultrasonic waves. <i>Composites Part B: Engineering</i> , 2015, 79, 667-675.	12.0	129
4	Two approaches for ultrafast random bit generation based on the chaotic dynamics of a semiconductor laser. <i>Optics Express</i> , 2014, 22, 6634.	3.4	115
5	Secure communication scheme using chaotic laser diodes subject to incoherent optical feedback and incoherent optical injection. <i>Optics Letters</i> , 2001, 26, 1486.	3.3	92
6	Synchronization regimes of optical-feedback-induced chaos in unidirectionally coupled semiconductor lasers. <i>Physical Review E</i> , 2002, 65, 056205.	2.1	85
7	Renal insufficiency in infant: side-effect of prenatal exposure to mesalazine?. <i>Lancet, The</i> , 1994, 344, 620-621.	13.7	81
8	Time-delay concealment and complexity enhancement of an external-cavity laser through optical injection. <i>Optics Letters</i> , 2015, 40, 4416.	3.3	78
9	Time delay identification in chaotic cryptosystems ruled by delay-differential equations. <i>Journal of Optical Technology (A Translation of Opticheskii Zhurnal)</i> , 2005, 72, 373.	0.4	71
10	Influence of polarization mode competition on the synchronization of two unidirectionally coupled vertical-cavity surface-emitting lasers. <i>Optics Letters</i> , 2007, 32, 1629.	3.3	67
11	Terahertz Superresolution Stratigraphic Characterization of Multilayered Structures Using Sparse Deconvolution. <i>IEEE Transactions on Terahertz Science and Technology</i> , 2017, 7, 260-267.	3.1	67
12	Terahertz frequency-wavelet domain deconvolution for stratigraphic and subsurface investigation of art painting. <i>Optics Express</i> , 2016, 24, 26972.	3.4	62
13	Two types of synchronization in unidirectionally coupled chaotic external-cavity semiconductor lasers. <i>Physical Review E</i> , 2001, 64, 045203.	2.1	59
14	Polarization-resolved terahertz imaging of intra- and inter-laminar damages in hybrid fiber-reinforced composite laminate subject to low-velocity impact. <i>Composites Part B: Engineering</i> , 2016, 92, 167-174.	12.0	53
15	Polarization synchronization in unidirectionally coupled vertical-cavity surface-emitting lasers with orthogonal optical injection. <i>Physical Review E</i> , 2007, 75, 056213.	2.1	52
16	Global mapping of stratigraphy of an old-master painting using sparsity-based terahertz reflectometry. <i>Scientific Reports</i> , 2017, 7, 15098.	3.3	51
17	Enhanced Terahertz Imaging of Small Forced Delamination in Woven Glass Fibre-reinforced Composites with Wavelet De-noising. <i>Journal of Infrared, Millimeter, and Terahertz Waves</i> , 2016, 37, 289-301.	2.2	50
18	Compressive Sensing with Optical Chaos. <i>Scientific Reports</i> , 2016, 6, 35206.	3.3	45

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19	Comparison of two types of synchronization of external-cavity semiconductor lasers. Optics Letters, 2002, 27, 31.	3.3	41
20	Terahertz Quantitative Nondestructive Evaluation of Failure Modes in Polymer-Coated Steel. IEEE Journal of Selected Topics in Quantum Electronics, 2017, 23, 1-7.	2.9	37
21	Visualization of subsurface damage in woven carbon fiber-reinforced composites using polarization-sensitive terahertz imaging. NDT and E International, 2018, 99, 72-79.	3.7	37
22	Depth resolution enhancement of terahertz deconvolution by autoregressive spectral extrapolation. Optics Letters, 2017, 42, 1828.	3.3	33
23	Enhancing optical-feedback-induced chaotic dynamics in semiconductor ring lasers via optical injection. Nonlinear Dynamics, 2018, 92, 315-324.	5.2	28
24	Multiplexed encryption using chaotic systems with multiple stochastic-delayed feedbacks. Physical Review E, 2009, 80, 066209.	2.1	26
25	Experimental bifurcation-cascade diagram of an external-cavity semiconductor laser. Optics Express, 2014, 22, 2348.	3.4	24
26	A multi-GHz chaotic optoelectronic oscillator based on laser terminal voltage. Applied Physics Letters, 2016, 108, 191109.	3.3	21
27	Pulsed THz imaging for thickness characterization of plastic sheets. NDT and E International, 2020, 116, 102338.	3.7	20
28	Thickness characterization of multi-layer coated steel by terahertz time-of-flight tomography. NDT and E International, 2020, 116, 102358.	3.7	19
29	Terahertz Time-of-Flight Tomography Beyond the Axial Resolution Limit: Autoregressive Spectral Estimation Based on the Modified Covariance Method. Journal of Infrared, Millimeter, and Terahertz Waves, 2020, 41, 926-939.	2.2	19
30	Nondestructive measurement of mill-scale thickness on steel by terahertz time-of-flight tomography. Surface and Coatings Technology, 2020, 393, 125765.	4.8	19
31	Statistics of the optical intensity of a chaotic external-cavity DFB laser. Optics Letters, 2014, 39, 5949.	3.3	18
32	Low-Noise X-Band Tunable Microwave Generator Based on a Semiconductor Laser With Feedback. IEEE Photonics Technology Letters, 2018, 30, 1597-1600.	2.5	18
33	Experimental route to chaos of an external-cavity semiconductor laser. Physical Review A, 2015, 91, .	2.5	16
34	Delay induced high order locking effects in semiconductor lasers. Chaos, 2017, 27, 114325.	2.5	16
35	Spectrally efficient multiplexing of chaotic light. Optics Letters, 2010, 35, 2016.	3.3	15
36	Low-frequency fluctuations in an external-cavity laser leading to extreme events. Physical Review E, 2016, 93, 042216.	2.1	15

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37	Initial-state dependence of the route to chaos of an external-cavity laser. <i>Physical Review A</i> , 2017, 95, .	2.5	15
38	Tunable X-Band Optoelectronic Oscillators Based on External-Cavity Semiconductor Lasers. <i>IEEE Journal of Quantum Electronics</i> , 2017, 53, 1-6.	1.9	13
39	Mapping the nonlinear dynamics of a laser diode via its terminal voltage. <i>Optics Letters</i> , 2014, 39, 5630.	3.3	11
40	Multiscale Ordinal Symbolic Analysis of the Lang-Kobayashi Model for External-Cavity Semiconductor Lasers: A Test of Theory. <i>IEEE Journal of Quantum Electronics</i> , 2015, 51, 1-6.	1.9	11
41	Application of Ultrasonic Coda Wave Interferometry for Micro-cracks Monitoring in Woven Fabric Composites. <i>Journal of Nondestructive Evaluation</i> , 2019, 38, 1.	2.4	11
42	Staircase Dynamics of a Photonic Microwave Oscillator Based on a Laser Diode with Delayed Optoelectronic Feedback. <i>Physical Review Applied</i> , 2020, 13, .	3.8	11
43	Bifurcation-Cascade Diagrams of an External-Cavity Semiconductor Laser: Experiment and Theory. <i>IEEE Journal of Quantum Electronics</i> , 2014, 50, 965-972.	1.9	10
44	Routes to Chaos of a Semiconductor Laser Subjected to External Optical Feedback: A Review. <i>Photonics</i> , 2020, 7, 22.	2.0	10
45	Asymmetrical performance of a laser-based reservoir computer with optoelectronic feedback. <i>Optics Letters</i> , 2020, 45, 6150.	3.3	10
46	Generation of orthogonal codes with chaotic optical systems. <i>Optics Letters</i> , 2011, 36, 2287.	3.3	9
47	Multistate intermittency on the route to chaos of a semiconductor laser subjected to optical feedback from a long external cavity. <i>Chaos</i> , 2018, 28, 011102.	2.5	9
48	Resonances between fundamental frequencies for lasers with large delayed feedbacks. <i>Physical Review E</i> , 2019, 99, 062219.	2.1	9
49	Optical constants of CuO and ZnO particles in the terahertz frequency range. <i>Ceramics International</i> , 2020, 46, 24110-24119.	4.8	9
50	Microwave Frequency Comb Generation by Gain-Switching Versus Relaxation Oscillations. <i>IEEE Photonics Technology Letters</i> , 2021, 33, 491-494.	2.5	9
51	Crisis route to chaos in semiconductor lasers subjected to external optical feedback. <i>Physical Review A</i> , 2018, 97, .	2.5	8
52	Ultrasound Evaluation of the Protector Role of the Pronator Quadratus Suture in Volar Plating. <i>Journal of Ultrasound in Medicine</i> , 2019, 38, 2785-2791.	1.7	8
53	Characterization of nanoporous Al <sub>2</sub> O <sub>3</sub> films at terahertz frequencies. <i>Optics Letters</i> , 2020, 45, 4092.	3.3	8
54	Nanometric sensing with laser feedback interferometry. <i>Optics Letters</i> , 2019, 44, 903.	3.3	8

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55	Delay-time identification in chaotic optical systems with two delays. , 2006, , .		7
56	Scanning acoustic microscopy investigation of weld lines in injection-molded parts manufactured from industrial thermoplastic polymer. Micron, 2020, 138, 102925.	2.2	7
57	Chaotic laser voltage: An electronic entropy source. Applied Physics Letters, 2018, 112, .	3.3	6
58	Terahertz Dielectric Characterization of Low-Loss Thermoplastics for 6G Applications. International Journal of Wireless Information Networks, 2022, 29, 269-274.	2.7	6
59	Statistical Properties of an External-Cavity Semiconductor Laser: Experiment and Theory. IEEE Journal of Selected Topics in Quantum Electronics, 2015, 21, 553-560.	2.9	5
60	Nondestructive characterization of nanoporous alumina films using terahertz scattering imaging. Surface and Coatings Technology, 2021, 408, 126792.	4.8	4
61	Terahertz Nondestructive Stratigraphic Analysis of Complex Layered Structures: Reconstruction Techniques. Journal of Infrared, Millimeter, and Terahertz Waves, 2021, 42, 929-946.	2.2	4
62	Optical square-wave generation in a semiconductor laser with optoelectronic feedback. Optics Letters, 2021, 46, 6031.	3.3	4
63	Terahertz Permittivity of Pressed ZnO and CuO Powder in Polyethylene Pellets: Effect of Porosity. IEEE Transactions on Terahertz Science and Technology, 2021, 11, 402-407.	3.1	3
64	Diagnosis of injection-molded weld lines in ABS thermoplastic by polarized terahertz reflective imaging. NDT and E International, 2021, 122, 102497.	3.7	3
65	Terahertz Imaging for Paper Handling of Legacy Documents. Sensors, 2021, 21, 6756.	3.8	3
66	Revealing inscriptions obscured by time on an early-modern lead funerary cross using terahertz multispectral imaging. Scientific Reports, 2022, 12, 3429.	3.3	3
67	Cryptographic scheme using chaotic laser diodes subject to incoherent optical feedback. , 2001, , .		2
68	Influence of digitisation on masterâ€“slave synchronisation in chaos-encrypted data transmission. IET Optoelectronics, 2007, 1, 3-8.	3.3	2
69	Breaking on/off phase-shift keying in optical chaos-based cryptosystems. , 2010, , .		2
70	Chaos-Based Secure Optical Communications Using Semiconductor Lasers. , 2010, , 451-478.		2
71	Multiple-Access Optical Chaos-Based Communications Using Optoelectronic Systems. , 2010, , .		1
72	Ultrafast Random Bit Generation Based on the Chaotic Dynamics of a Semiconductor Laser. , 2014, , .		1

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73	Bifurcation diagram of an external-cavity semiconductor laser: experiment and theory. Proceedings of SPIE, 2014, , .	0.8	1
74	Reading a CD-ROM without a photodiode. , 2016, , .		1
75	Terahertz pulsed imaging reveals the stratigraphy of a seventeenth-century oil painting. , 2018, , .		1
76	Synchronization of chaotic semiconductor lasers with phase-conjugate feedback. , 0, , .		0
77	Dynamical behavior of a multimode semiconductor laser subject to a single mode selective optical feedback. , 0, , .		0
78	Statistical study of the time between total power dropouts in a VCSEL operating in the low-frequency fluctuations regime. , 0, , .		0
79	Comparison of two types of synchronization of unidirectionally coupled external-cavity semiconductor lasers. , 2002, , .		0
80	Synchronization regimes of unidirectionally coupled VCSELs with orthogonal optical injection. , 2007, , .		0
81	A simple, extremely large bandwidth, modulator-free QKD system. , 2007, , .		0
82	Polarization Synchronization Properties of Unidirectionally Coupled VCSELs. , 2007, , .		0
83	Masking the time-delay of the chaotic output of an external-cavity laser. , 2008, , .		0
84	Multiplexing digital information using hyperchaotic optoelectronic oscillators with nonlinear time-delayed feedback loops. , 2009, , .		0
85	Chaos multiplexing with external-cavity semiconductor lasers. , 2010, , .		0
86	Fast random bit generation with a single chaotic laser subjected to optical feedback. , 2014, , .		0
87	Impact damage characterization in hybrid fiber-reinforced composites using terahertz imaging in time and frequency domain. , 2015, , .		0
88	Comparative study of mid-20<sup>th</sup>C. Art using THz and X-ray imaging. , 2016, , .		0
89	Sparse signal reconstruction based on experimental chaos generated by a laser diode. Proceedings of SPIE, 2016, , .	0.8	0
90	Reading bits on a CD-ROM without a photodiode. IET Optoelectronics, 2017, 11, 213-216.	3.3	0

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91	Terahertz deconvolution based on autoregressive spectral extrapolation. , 2017, , .		0
92	Discrete Relaxation Oscillation Frequency Hopping in Delayed-feedback Semiconductor Lasers. , 2018, , .		0
93	Terahertz Non-Destructive Thickness Characterization of Optically Thin Scale Layers on Steel. , 2019, , .		0
94	THz Thickness Characterization of Plastic Sheets Including Dispersion. , 2019, , .		0
95	Characterization of nanoporous alumina using terahertz reflectometry and scattering imaging. , 2021, , .		0
96	Experimental Bifurcation Diagram and Terminal Voltage Change of an External-cavity Semiconductor Laser. , 2014, , .		0
97	Simultaneous Bifurcation Diagrams of Carrier Number and Optical Intensity of External Cavity Laser. , 2016, , .		0
98	Polarization-resolved terahertz imaging of hybrid fiber-reinforced composite laminate subject to low-velocity impact. , 2016, , .		0
99	Terahertz imaging for subsurface investigation of art paintings. , 2017, , .		0
100	Feedback-induced discretisation of the relaxation oscillation frequency in a semiconductor laser. , 2018, , .		0
101	External-cavity based optoelectronic oscillator stabilization (Conference Presentation). , 2018, , .		0
102	Terahertz imaging for nondestructive testing of materials for aerospace, automotive, and energy (Conference Presentation). , 2018, , .		0
103	Low-noise x-band tunable microwave generator based on external cavity lasers. , 2019, , .		0
104	Coexisting periodic regimes in semiconductor lasers with optical feedback. , 2019, , .		0
105	Terahertz Characterization of Roman Amphora Sherds. , 2020, , .		0