

Cristina Masoller

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/7548478/publications.pdf>

Version: 2024-02-01

236
papers

5,380
citations

94433

37
h-index

110387

64
g-index

258
all docs

258
docs citations

258
times ranked

2570
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|---|------|-----------|
| 1 | Anticipation in the Synchronization of Chaotic Semiconductor Lasers with Optical Feedback. <i>Physical Review Letters</i> , 2001, 86, 2782-2785. | 7.8 | 310 |
| 2 | Deterministic Optical Rogue Waves. <i>Physical Review Letters</i> , 2011, 107, 053901. | 7.8 | 236 |
| 3 | Roadmap on optical rogue waves and extreme events. <i>Journal of Optics (United Kingdom)</i> , 2016, 18, 063001. | 2.2 | 225 |
| 4 | Noise-Induced Resonance in Delayed Feedback Systems. <i>Physical Review Letters</i> , 2002, 88, 034102. | 7.8 | 192 |
| 5 | Quantification of network structural dissimilarities. <i>Nature Communications</i> , 2017, 8, 13928. | 12.8 | 166 |
| 6 | Distribution of Residence Times of Time-Delayed Bistable Systems Driven by Noise. <i>Physical Review Letters</i> , 2003, 90, 020601. | 7.8 | 125 |
| 7 | Random Delays and the Synchronization of Chaotic Maps. <i>Physical Review Letters</i> , 2005, 94, 134102. | 7.8 | 120 |
| 8 | Rogue waves in optically injected lasers: Origin, predictability, and suppression. <i>Physical Review A</i> , 2013, 87, . | 2.5 | 102 |
| 9 | Chaos shift-keying encryption in chaotic external-cavity semiconductor lasers using a single-receiver scheme. <i>IEEE Photonics Technology Letters</i> , 2002, 14, 456-458. | 2.5 | 93 |
| 10 | Crowd Synchrony and Quorum Sensing in Delay-Coupled Lasers. <i>Physical Review Letters</i> , 2010, 105, 264101. | 7.8 | 87 |
| 11 | Inferring long memory processes in the climate network via ordinal pattern analysis. <i>Chaos</i> , 2011, 21, 013101. | 2.5 | 86 |
| 12 | Synchronization regimes of optical-feedback-induced chaos in unidirectionally coupled semiconductor lasers. <i>Physical Review E</i> , 2002, 65, 056205. | 2.1 | 85 |
| 13 | Anticipated synchronization in coupled chaotic maps with delays. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2001, 300, 359-366. | 2.6 | 82 |
| 14 | Modeling bidirectionally coupled single-mode semiconductor lasers. <i>Physical Review A</i> , 2002, 65, . | 2.5 | 81 |
| 15 | Detecting and quantifying stochastic and coherence resonances via information-theory complexity measurements. <i>Physical Review E</i> , 2009, 79, 040106. | 2.1 | 80 |
| 16 | Anticipating the Response of Excitable Systems Driven by Random Forcing. <i>Physical Review Letters</i> , 2003, 90, 204102. | 7.8 | 79 |
| 17 | Coexistence of attractors in a laser diode with optical feedback from a large external cavity. <i>Physical Review A</i> , 1994, 50, 2569-2578. | 2.5 | 77 |
| 18 | Extreme intensity pulses in a semiconductor laser with a short external cavity. <i>Physical Review E</i> , 2013, 87, 062913. | 2.1 | 73 |

| # | ARTICLE | IF | CITATIONS |
|----|---|-----|-----------|
| 19 | Experimental Investigation of a Bistable System in the Presence of Noise and Delay. <i>Physical Review Letters</i> , 2004, 92, 050601. | 7.8 | 71 |
| 20 | Low-frequency fluctuations in vertical-cavity surface-emitting semiconductor lasers with optical feedback. <i>Physical Review A</i> , 1999, 59, 3021-3031. | 2.5 | 65 |
| 21 | Detecting and quantifying temporal correlations in stochastic resonance via information theory measures. <i>European Physical Journal B</i> , 2009, 69, 37-43. | 1.5 | 60 |
| 22 | Stability and dynamical properties of the coexisting attractors of an external-cavity semiconductor laser. <i>Physical Review A</i> , 1998, 57, 1313-1322. | 2.5 | 59 |
| 23 | Inferring the connectivity of coupled oscillators from time-series statistical similarity analysis. <i>Scientific Reports</i> , 2015, 5, 10829. | 3.3 | 54 |
| 24 | Numerical implementation of a VCSEL-based stochastic logic gate via polarization bistability. <i>Optics Express</i> , 2010, 18, 16418. | 3.4 | 53 |
| 25 | Characterization of the anticipated synchronization regime in the coupled FitzHugh-Nagumo model for neurons. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2003, 325, 192-198. | 2.6 | 52 |
| 26 | Influence of optical feedback on the polarization switching of vertical-cavity surface-emitting lasers. <i>IEEE Journal of Quantum Electronics</i> , 2005, 41, 483-489. | 1.9 | 52 |
| 27 | Interplay of subthreshold activity, time-delayed feedback, and noise on neuronal firing patterns. <i>Physical Review E</i> , 2008, 78, 041907. | 2.1 | 49 |
| 28 | Machine learning algorithms for predicting the amplitude of chaotic laser pulses. <i>Chaos</i> , 2019, 29, 113111. | 2.5 | 49 |
| 29 | Unveiling Temporal Correlations Characteristic of a Phase Transition in the Output Intensity of a Fiber Laser. <i>Physical Review Letters</i> , 2016, 116, 033902. | 7.8 | 48 |
| 30 | Interaction network based early-warning indicators of vegetation transitions. <i>Ecological Complexity</i> , 2014, 19, 148-157. | 2.9 | 47 |
| 31 | Quantifying the statistical complexity of low-frequency fluctuations in semiconductor lasers with optical feedback. <i>Physical Review A</i> , 2010, 82, . | 2.5 | 45 |
| 32 | Inferring interdependencies in climate networks constructed at inter-annual, intra-season and longer time scales. <i>European Physical Journal: Special Topics</i> , 2013, 222, 511-523. | 2.6 | 45 |
| 33 | Unveiling the complex organization of recurrent patterns in spiking dynamical systems. <i>Scientific Reports</i> , 2014, 4, 4696. | 3.3 | 45 |
| 34 | Assessing the direction of climate interactions by means of complex networks and information theoretic tools. <i>Chaos</i> , 2015, 25, 033105. | 2.5 | 43 |
| 35 | Comparison of two types of synchronization of external-cavity semiconductor lasers. <i>Optics Letters</i> , 2002, 27, 31. | 3.3 | 41 |
| 36 | Delay-induced synchronization phenomena in an array of globally coupled logistic maps. <i>Physical Review E</i> , 2003, 67, 056219. | 2.1 | 41 |

| # | ARTICLE | IF | CITATIONS |
|----|---|-----|-----------|
| 37 | Effects of periodic forcing on the temporally correlated spikes of a semiconductor laser with feedback. <i>Optics Express</i> , 2015, 23, 5571. | 3.4 | 40 |
| 38 | Influence of time-delayed feedback in the firing pattern of thermally sensitive neurons. <i>Physical Review E</i> , 2004, 70, 031904. | 2.1 | 39 |
| 39 | A study of the air-sea interaction in the South Atlantic Convergence Zone through Granger causality. <i>International Journal of Climatology</i> , 2015, 35, 3440-3453. | 3.5 | 38 |
| 40 | Anticipation in the synchronization of chaotic time-delay systems. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2001, 295, 301-304. | 2.6 | 37 |
| 41 | Different regimes of low-frequency fluctuations in vertical-cavity surface-emitting lasers. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2003, 20, 37. | 2.1 | 36 |
| 42 | Spatiotemporal dynamics in the coherence collapsed regime of semiconductor lasers with optical feedback. <i>Chaos</i> , 1997, 7, 455-462. | 2.5 | 34 |
| 43 | Controlling the likelihood of rogue waves in an optically injected semiconductor laser via direct current modulation. <i>Physical Review A</i> , 2014, 89, . | 2.5 | 34 |
| 44 | Exact detection of direct links in networks of interacting dynamical units. <i>New Journal of Physics</i> , 2014, 16, 093010. | 2.9 | 33 |
| 45 | Characterization of strange attractors of Lorenz model of general circulation of the atmosphere. <i>Chaos, Solitons and Fractals</i> , 1995, 6, 357-366. | 5.1 | 32 |
| 46 | Subdiffractive light in bi-periodic arrays of modulated fibers. <i>Optics Express</i> , 2006, 14, 10669. | 3.4 | 31 |
| 47 | Experimental study of polarization switching of vertical-cavity surface-emitting lasers as a dynamical bifurcation. <i>Optics Letters</i> , 2006, 31, 748. | 3.3 | 30 |
| 48 | Transient low-frequency fluctuations in semiconductor lasers with optical feedback. <i>Physical Review A</i> , 2010, 81, . | 2.5 | 30 |
| 49 | Unravelling the community structure of the climate system by using lags and symbolic time-series analysis. <i>Scientific Reports</i> , 2016, 6, 29804. | 3.3 | 30 |
| 50 | Topological data analysis of high resolution diabetic retinopathy images. <i>PLoS ONE</i> , 2019, 14, e0217413. | 2.5 | 30 |
| 51 | Polarization dynamics in vertical-cavity surface-emitting lasers with optical feedback through a quarter-wave plate. <i>Applied Physics Letters</i> , 1999, 74, 1078-1080. | 3.3 | 29 |
| 52 | Delayed coupling of logistic maps. <i>Physical Review E</i> , 2001, 64, 037202. | 2.1 | 29 |
| 53 | Synchronization in an array of globally coupled maps with delayed interactions. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2003, 325, 186-191. | 2.6 | 29 |
| 54 | Synchronization via clustering in a small delay-coupled laser network. <i>Europhysics Letters</i> , 2007, 79, 64003. | 2.0 | 29 |

| # | ARTICLE | IF | CITATIONS |
|----|---|-----|-----------|
| 55 | Bifurcation to square-wave switching in orthogonally delay-coupled semiconductor lasers: Theory and experiment. <i>Physical Review A</i> , 2011, 84, . | 2.5 | 29 |
| 56 | Observation of cascade complete-chaos synchronization with zero time lag in laser diodes. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2006, 23, 846. | 2.1 | 28 |
| 57 | Influence of the injection current sweep rate on the polarization switching of vertical-cavity surface-emitting lasers. <i>Journal of Applied Physics</i> , 2006, 99, 026108. | 2.5 | 28 |
| 58 | Stochastic logic gate that exploits noise and polarization bistability in an optically injected VCSEL. <i>Optics Express</i> , 2012, 20, 22692. | 3.4 | 28 |
| 59 | Anticipating the dynamics of chaotic maps. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2002, 295, 39-43. | 2.1 | 27 |
| 60 | Dynamics of globally delay-coupled neurons displaying subthreshold oscillations. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2009, 367, 3255-3266. | 3.4 | 26 |
| 61 | Distinguishing signatures of determinism and stochasticity in spiking complex systems. <i>Scientific Reports</i> , 2013, 3, . | 3.3 | 26 |
| 62 | On the effects of lag-times in networks constructed from similarities of monthly fluctuations of climate fields. <i>Europhysics Letters</i> , 2013, 102, 59003. | 2.0 | 26 |
| 63 | Quantifying sudden changes in dynamical systems using symbolic networks. <i>New Journal of Physics</i> , 2015, 17, 023068. | 2.9 | 26 |
| 64 | Assessing diversity in multiplex networks. <i>Scientific Reports</i> , 2019, 9, 4511. | 3.3 | 26 |
| 65 | All-Optical Stochastic Logic Gate Based on a VCSEL With Tunable Optical Injection. <i>IEEE Journal of Quantum Electronics</i> , 2013, 49, 886-893. | 1.9 | 24 |
| 66 | Distribution of residence times in bistable noisy systems with time-delayed feedback. <i>Physical Review E</i> , 2004, 70, 031103. | 2.1 | 23 |
| 67 | Polarization Dynamics of Current-Modulated Vertical-Cavity Surface-Emitting Lasers. <i>IEEE Journal of Quantum Electronics</i> , 2007, 43, 1074-1082. | 1.9 | 23 |
| 68 | Distinguishing the effects of internal and forced atmospheric variability in climate networks. <i>Nonlinear Processes in Geophysics</i> , 2014, 21, 617-631. | 1.3 | 23 |
| 69 | Inferring directed climatic interactions with renormalized partial directed coherence and directed partial correlation. <i>Chaos</i> , 2017, 27, 035815. | 2.5 | 23 |
| 70 | Numerical Study of Optical Injection Dynamics of Vertical-Cavity Surface-Emitting Lasers. <i>IEEE Journal of Quantum Electronics</i> , 2004, 40, 25-30. | 1.9 | 22 |
| 71 | Transverse-mode dynamics in directly modulated vertical-cavity surface-emitting lasers with optical feedback. <i>IEEE Journal of Quantum Electronics</i> , 2004, 40, 620-628. | 1.9 | 22 |
| 72 | Numerical and experimental study of the effects of noise on the permutation entropy. <i>New Journal of Physics</i> , 2015, 17, 093002. | 2.9 | 22 |

| # | ARTICLE | IF | CITATIONS |
|----|---|-----|-----------|
| 73 | Regular and chaotic behavior in the new Lorenz system. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 1992, 167, 185-190. | 2.1 | 21 |
| 74 | Transverse-mode dynamics in vertical-cavity surface-emitting lasers with optical feedback. <i>Physical Review A</i> , 2002, 66, . | 2.5 | 21 |
| 75 | Synchronizability of chaotic logistic maps in delayed complex networks. <i>European Physical Journal B</i> , 2009, 67, 83-93. | 1.5 | 21 |
| 76 | Complex transitions to synchronization in delay-coupled networks of logistic maps. <i>European Physical Journal D</i> , 2011, 62, 119-126. | 1.3 | 21 |
| 77 | Predictability of extreme intensity pulses in optically injected semiconductor lasers. <i>European Physical Journal: Special Topics</i> , 2017, 226, 1971-1977. | 2.6 | 21 |
| 78 | Fast pulsing dynamics of a vertical-cavity surface-emitting laser operating in the low-frequency fluctuation regime. <i>Physical Review A</i> , 2003, 68, . | 2.5 | 20 |
| 79 | Synchronization of unidirectionally coupled multi-transverse-mode vertical-cavity surface-emitting lasers. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2004, 21, 1772. | 2.1 | 20 |
| 80 | Impact of orthogonal optical feedback on the polarization switching of vertical-cavity surface-emitting lasers. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2007, 24, 1987. | 2.1 | 20 |
| 81 | Modeling spatial effects in multi-longitudinal-mode semiconductor lasers. <i>Physical Review A</i> , 2006, 73, . | 2.5 | 19 |
| 82 | Quantifying the complexity of the delayed logistic map. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2011, 369, 425-438. | 3.4 | 19 |
| 83 | Language organization and temporal correlations in the spiking activity of an excitable laser: Experiments and model comparison. <i>Physical Review E</i> , 2011, 84, 026202. | 2.1 | 19 |
| 84 | Rogue waves in injected semiconductor lasers with current modulation: role of the modulation phase. <i>Optics Express</i> , 2014, 22, 28377. | 3.4 | 19 |
| 85 | Global Atmospheric Dynamics Investigated by Using Hilbert Frequency Analysis. <i>Entropy</i> , 2016, 18, 408. | 2.2 | 19 |
| 86 | Generation of extreme pulses on demand in semiconductor lasers with optical injection. <i>Optics Express</i> , 2017, 25, 31326. | 3.4 | 19 |
| 87 | Sub-threshold signal encoding in coupled FitzHugh-Nagumo neurons. <i>Scientific Reports</i> , 2018, 8, 8276. | 3.3 | 19 |
| 88 | Experimental and theoretical study of dynamical hysteresis and scaling laws in the polarization switching of vertical-cavity surface-emitting lasers. <i>Physical Review A</i> , 2008, 77, . | 2.5 | 18 |
| 89 | Experimental and numerical study of the symbolic dynamics of a modulated external-cavity semiconductor laser. <i>Optics Express</i> , 2014, 22, 4705. | 3.4 | 18 |
| 90 | Differentiating resting brain states using ordinal symbolic analysis. <i>Chaos</i> , 2018, 28, 106307. | 2.5 | 18 |

| # | ARTICLE | IF | CITATIONS |
|-----|---|-----|-----------|
| 91 | Quantifying changes in spatial patterns of surface air temperature dynamics over several decades. <i>Earth System Dynamics</i> , 2018, 9, 383-391. | 7.1 | 18 |
| 92 | Control of coherence resonance in multiplex neural networks. <i>Chaos, Solitons and Fractals</i> , 2021, 145, 110666. | 5.1 | 18 |
| 93 | 20 years of ordinal patterns: Perspectives and challenges. <i>Europhysics Letters</i> , 0, , . | 2.0 | 18 |
| 94 | Square-wave switching in vertical-cavity surface-emitting lasers with polarization-rotated optical feedback: Experiments and simulations. <i>Physical Review A</i> , 2012, 86, . | 2.5 | 17 |
| 95 | Organization and identification of solutions in the time-delayed Mackey-Glass model. <i>Chaos</i> , 2015, 25, 043112. | 2.5 | 17 |
| 96 | Identifying large-scale patterns of unpredictability and response to insolation in atmospheric data. <i>Scientific Reports</i> , 2017, 7, 45676. | 3.3 | 17 |
| 97 | Steady-state stabilization due to random delays in maps with self-feedback loops and in globally delayed-coupled maps. <i>Physical Review E</i> , 2005, 72, 066217. | 2.1 | 16 |
| 98 | Chaotic maps coupled with random delays: Connectivity, topology, and network propensity for synchronization. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2006, 371, 104-107. | 2.6 | 16 |
| 99 | Implications of how the linewidth enhancement factor is introduced on the Lang and Kobayashi model. <i>IEEE Journal of Quantum Electronics</i> , 1997, 33, 796-803. | 1.9 | 15 |
| 100 | Comparison of the effects of nonlinear gain and weak optical feedback on the dynamics of semiconductor lasers. <i>IEEE Journal of Quantum Electronics</i> , 1997, 33, 804-814. | 1.9 | 15 |
| 101 | Synchronization of globally coupled non-identical maps with inhomogeneous delayed interactions. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2004, 342, 344-350. | 2.6 | 15 |
| 102 | Bistability in Semiconductor Lasers With Polarization-Rotated Frequency-Dependent Optical Feedback. <i>IEEE Journal of Quantum Electronics</i> , 2007, 43, 261-268. | 1.9 | 15 |
| 103 | Testing Critical Slowing Down as a Bifurcation Indicator in a Low-Dissipation Dynamical System. <i>Physical Review Letters</i> , 2020, 125, 134102. | 7.8 | 15 |
| 104 | Effect of the external cavity length in the dynamics of a semiconductor laser with optical feedback. <i>Optics Communications</i> , 1996, 128, 363-376. | 2.1 | 14 |
| 105 | Emergence of spike correlations in periodically forced excitable systems. <i>Physical Review E</i> , 2016, 94, 032218. | 2.1 | 14 |
| 106 | Experimental study of modulation waveforms for entraining the spikes emitted by a semiconductor laser with optical feedback. <i>Optics Express</i> , 2018, 26, 9298. | 3.4 | 14 |
| 107 | Fast and effective pseudo transfer entropy for bivariate data-driven causal inference. <i>Scientific Reports</i> , 2021, 11, 8423. | 3.3 | 14 |
| 108 | Discriminating chaotic and stochastic time series using permutation entropy and artificial neural networks. <i>Scientific Reports</i> , 2021, 11, 15789. | 3.3 | 14 |

| # | ARTICLE | IF | CITATIONS |
|-----|--|-----|-----------|
| 109 | The nonlinear gain and the onset of chaos in a semiconductor laser with optical feedback. <i>Chaos, Solitons and Fractals</i> , 1995, 6, 347-356. | 5.1 | 13 |
| 110 | Antiphase dynamics in multimode semiconductor lasers with optical feedback. <i>Physical Review A</i> , 2005, 71, . | 2.5 | 13 |
| 111 | Comparing the dynamics of periodically forced lasers and neurons. <i>New Journal of Physics</i> , 2019, 21, 103039. | 2.9 | 13 |
| 112 | Unsupervised feature extraction of anterior chamber OCT images for ordering and classification. <i>Scientific Reports</i> , 2019, 9, 1157. | 3.3 | 13 |
| 113 | Effect of the nonlinear gain in the visibility of a semiconductor laser with incoherent feedback in the coherence collapsed regime. <i>IEEE Journal of Quantum Electronics</i> , 1995, 31, 1022-1028. | 1.9 | 12 |
| 114 | Antiphase dynamics in a multimode Fabry-Pérot semiconductor laser with external feedback. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2003, 327, 129-134. | 2.6 | 12 |
| 115 | Dynamical Hysteresis and Thermal Effects in Vertical-Cavity Surface-Emitting Lasers. <i>IEEE Journal of Quantum Electronics</i> , 2010, 46, 1788-1794. | 1.9 | 12 |
| 116 | Experimental characterization of the transition to coherence collapse in a semiconductor laser with optical feedback. <i>Chaos</i> , 2017, 27, 114315. | 2.5 | 12 |
| 117 | Different regimes of synchronization in nonidentical time-delayed maps. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2003, 325, 361-370. | 2.6 | 11 |
| 118 | Modeling thermal effects and polarization competition in vertical-cavity surface-emitting lasers. <i>Optics Express</i> , 2008, 16, 21282. | 3.4 | 11 |
| 119 | Thermal effects and dynamical hysteresis in the turn-on and turn-off of vertical-cavity surface-emitting lasers. <i>Optics Letters</i> , 2010, 35, 3688. | 3.3 | 11 |
| 120 | Hopf bifurcation to square-wave switching in mutually coupled semiconductor lasers. <i>Physical Review E</i> , 2012, 86, 016218. | 2.1 | 11 |
| 121 | Multidimensional subwavelength position sensing using a semiconductor laser with optical feedback. <i>Optics Letters</i> , 2013, 38, 4331. | 3.3 | 11 |
| 122 | Quantitative identification of dynamical transitions in a semiconductor laser with optical feedback. <i>Scientific Reports</i> , 2016, 6, 37510. | 3.3 | 11 |
| 123 | Persistence and stochastic periodicity in the intensity dynamics of a fiber laser during the transition to optical turbulence. <i>Physical Review A</i> , 2018, 97, . | 2.5 | 11 |
| 124 | Transverse and polarization effects in index-guided vertical-cavity surface-emitting lasers. <i>Physical Review A</i> , 2006, 74, . | 2.5 | 10 |
| 125 | Influence of Madden-Julian Oscillation on extreme rainfall events in Spring in southern Uruguay. <i>International Journal of Climatology</i> , 2021, 41, 3339-3351. | 3.5 | 10 |
| 126 | Stability and modulation properties of a semiconductor laser with weak optical feedback from a distant reflector. <i>Quantum and Semiclassical Optics: Journal of the European Optical Society Part B</i> , 1998, 10, 519-534. | 0.9 | 9 |

| # | ARTICLE | IF | CITATIONS |
|-----|---|-----|-----------|
| 127 | Remote recovery of audio signals from videos of optical speckle patterns: a comparative study of signal recovery algorithms. <i>Optics Express</i> , 2020, 28, 8716. | 3.4 | 9 |
| 128 | Numerical investigation of noise-induced resonance in a semiconductor laser with optical feedback. <i>Physica D: Nonlinear Phenomena</i> , 2002, 168-169, 171-176. | 2.8 | 8 |
| 129 | Enhanced sensitivity to current modulation near dynamic instability in semiconductor lasers with optical feedback and optical injection. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2004, 21, 302. | 2.1 | 8 |
| 130 | Two-parameter study of square-wave switching dynamics in orthogonally delay-coupled semiconductor lasers. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2013, 371, 20120471. | 3.4 | 8 |
| 131 | Analysis of the Spike Rate and Spike Correlations in Modulated Semiconductor Lasers With Optical Feedback. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , 2015, 21, 561-567. | 2.9 | 8 |
| 132 | What Models and Tools can Contribute to a Better Understanding of Brain Activity?. <i>Frontiers in Network Physiology</i> , 0, 2, . | 1.8 | 8 |
| 133 | Chaotic properties of the coherence collapsed state of laser diodes with optical feedback. <i>Optics Communications</i> , 1993, 100, 331-340. | 2.1 | 7 |
| 134 | Numerical characterization of transient polarization square-wave switching in two orthogonally coupled VCSELs. <i>Optics Express</i> , 2011, 19, 20269. | 3.4 | 7 |
| 135 | Polarization Switching and Hysteresis in Vertical-Cavity Surface-Emitting Lasers Subject to Orthogonal Optical Injection. <i>IEEE Journal of Quantum Electronics</i> , 2014, 50, 848-853. | 1.9 | 7 |
| 136 | Analysis of noise-induced temporal correlations in neuronal spike sequences. <i>European Physical Journal: Special Topics</i> , 2016, 225, 2689-2696. | 2.6 | 7 |
| 137 | Speckle reduction in double-pass retinal images. <i>Scientific Reports</i> , 2019, 9, 4469. | 3.3 | 7 |
| 138 | Symbolic analysis of bursting dynamical regimes of Rulkov neural networks. <i>Neurocomputing</i> , 2021, 441, 44-51. | 5.9 | 7 |
| 139 | Machine learning prediction of the Madden-Julian oscillation. <i>Npj Climate and Atmospheric Science</i> , 2021, 4, . | 6.8 | 7 |
| 140 | Characterizing the dynamics of coupled pendulums via symbolic time series analysis. <i>European Physical Journal: Special Topics</i> , 2013, 222, 501-510. | 2.6 | 6 |
| 141 | Experimental characterization of the speckle pattern at the output of a multimode optical fiber. <i>Optics Express</i> , 2019, 27, 27737. | 3.4 | 6 |
| 142 | Neuronal coupling benefits the encoding of weak periodic signals in symbolic spike patterns. <i>Communications in Nonlinear Science and Numerical Simulation</i> , 2020, 82, 105023. | 3.3 | 6 |
| 143 | Characterizing signal encoding and transmission in class I and class II neurons via ordinal time-series analysis. <i>Chaos</i> , 2020, 30, 013123. | 2.5 | 6 |
| 144 | Effects of carrier transport on the transverse-mode selection of index-guided vertical-cavity surface-emitting lasers. <i>Optics Communications</i> , 2002, 202, 311-318. | 2.1 | 5 |

| # | ARTICLE | IF | CITATIONS |
|-----|--|-----|-----------|
| 145 | Quantifying the degree of locking in weakly forced stochastic systems. <i>Physical Review E</i> , 2019, 99, 022207. | 2.1 | 5 |
| 146 | Experimental study of speckle patterns generated by low-coherence semiconductor laser light. <i>Chaos</i> , 2020, 30, 063147. | 2.5 | 5 |
| 147 | Numerical simulations of the effect of noise on a delayed pitchfork bifurcation. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2000, 283, 228-232. | 2.6 | 4 |
| 148 | Modeling multi-longitudinal-mode semiconductor lasers with incoherent feedback. <i>Physical Review A</i> , 2007, 76, . | 2.5 | 4 |
| 149 | Polarization-Resolved Modulation Response of Single-Transverse-Mode Vertical-Cavity Surface-Emitting Lasers. <i>IEEE Journal of Quantum Electronics</i> , 2009, 45, 206-212. | 1.9 | 4 |
| 150 | Impact of lag information on network inference. <i>European Physical Journal: Special Topics</i> , 2018, 227, 1243-1250. | 2.6 | 4 |
| 151 | Exploiting the Nonlinear Dynamics of Optically Injected Semiconductor Lasers for Optical Sensing. <i>Photonics</i> , 2019, 6, 45. | 2.0 | 4 |
| 152 | Evaluating Temporal Correlations in Time Series Using Permutation Entropy, Ordinal Probabilities and Machine Learning. <i>Entropy</i> , 2021, 23, 1025. | 2.2 | 4 |
| 153 | Permutation entropy analysis of the output of a laser diode under stimulated Brillouin scattering optical feedback. <i>Optics Express</i> , 2021, 29, 26787. | 3.4 | 4 |
| 154 | Neuronal Multistability Induced by Delay. <i>Lecture Notes in Computer Science</i> , 2007, , 963-972. | 1.3 | 4 |
| 155 | Inferring the connectivity of coupled chaotic oscillators using Kalman filtering. <i>Scientific Reports</i> , 2021, 11, 22376. | 3.3 | 4 |
| 156 | Carrier dynamics in semiconductor lasers operating in the low-frequency fluctuation regime. <i>Journal of Optics B: Quantum and Semiclassical Optics</i> , 2000, 2, 563-569. | 1.4 | 3 |
| 157 | Dynamics of delayed-coupled chaotic logistic maps: Influence of network topology, connectivity and delay times. <i>Pramana - Journal of Physics</i> , 2008, 70, 1117-1125. | 1.8 | 3 |
| 158 | Generation of optical pulses in VCSELs below the static threshold using asymmetric current modulation. <i>Optics Express</i> , 2008, 16, 17848. | 3.4 | 3 |
| 159 | State space reconstruction of spatially extended systems and of time delayed systems from the time series of a scalar variable. <i>Chaos</i> , 2018, 28, 075504. | 2.5 | 3 |
| 160 | Network-based features for retinal fundus vessel structure analysis. <i>PLoS ONE</i> , 2019, 14, e0220132. | 2.5 | 3 |
| 161 | Outlier Mining Methods Based on Graph Structure Analysis. <i>Frontiers in Physics</i> , 2019, 7, . | 2.1 | 3 |
| 162 | Neuronal Transmission of Subthreshold Periodic Stimuli Via Symbolic Spike Patterns. <i>Entropy</i> , 2020, 22, 524. | 2.2 | 3 |

| # | ARTICLE | IF | CITATIONS |
|-----|--|-----|-----------|
| 163 | Inferring the connectivity of coupled oscillators and anticipating their transition to synchrony through lag-time analysis. <i>Chaos, Solitons and Fractals</i> , 2020, 133, 109604. | 5.1 | 3 |
| 164 | Locking Phenomena in Semiconductor Lasers near Threshold with Optical Feedback and Sinusoidal Current Modulation. <i>Applied Sciences (Switzerland)</i> , 2021, 11, 7871. | 2.5 | 3 |
| 165 | Analytical Study of the Codimension Two Bifurcations Of the New Lorenz System. <i>Nonlinear Phenomena and Complex Systems</i> , 1996, , 345-348. | 0.0 | 3 |
| 166 | Heavy-Tailed Fluctuations in the Spiking Output Intensity of Semiconductor Lasers with Optical Feedback. <i>PLoS ONE</i> , 2016, 11, e0150027. | 2.5 | 3 |
| 167 | ENSO and SAM Influence on the Generation of Long Episodes of Rossby Wave Packets During Southern Hemisphere Summer. <i>Journal of Geophysical Research D: Atmospheres</i> , 2021, 126, . | 3.3 | 3 |
| 168 | Correlation lags give early warning signals of approaching bifurcations. <i>Chaos, Solitons and Fractals</i> , 2022, 155, 111720. | 5.1 | 3 |
| 169 | Perspectives on the importance of complex systems in understanding our climate and climate change—The Nobel Prize in Physics 2021. <i>Chaos</i> , 2022, 32, . | 2.5 | 3 |
| 170 | Turn-on transient dynamics of a semiconductor laser with optical feedback. <i>International Journal of Numerical Modelling: Electronic Networks, Devices and Fields</i> , 2001, 14, 359-365. | 1.9 | 2 |
| 171 | Modeling a semiconductor laser with an intracavity atomic absorber. <i>Physical Review A</i> , 2009, 80, . | 2.5 | 2 |
| 172 | Frequency dynamics of semiconductor lasers with atomic absorbers: theory and experiments. <i>European Physical Journal D</i> , 2010, 58, 191-196. | 1.3 | 2 |
| 173 | Uncovering temporal regularity in atmospheric dynamics through Hilbert phase analysis. <i>Chaos</i> , 2019, 29, 051101. | 2.5 | 2 |
| 174 | Mapping atmospheric waves and unveiling phase coherent structures in a global surface air temperature reanalysis dataset. <i>Chaos</i> , 2020, 30, 011103. | 2.5 | 2 |
| 175 | Experimental and Numerical Study of Locking of Low-Frequency Fluctuations of a Semiconductor Laser with Optical Feedback. <i>Photonics</i> , 2022, 9, 103. | 2.0 | 2 |
| 176 | Dynamics of a semiconductor laser with feedback and modulation: experiments and model comparison. <i>Optics Express</i> , 2022, 30, 9441. | 3.4 | 2 |
| 177 | Feedback-induced destabilization of a laser diode using wavelets. <i>Physical Review A</i> , 1997, 56, 1492-1496. | 2.5 | 1 |
| 178 | Wavelet analysis of low frequency fluctuations of a semiconductor laser. <i>Optics Communications</i> , 1998, 157, 115-120. | 2.1 | 1 |
| 179 | Synchronization of globally coupled non-identical maps with inhomogeneous delayed interactions. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2004, 342, 344-344. | 2.6 | 1 |
| 180 | Topics on non-equilibrium statistical mechanics and nonlinear physics. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2009, 367, 3151-3156. | 3.4 | 1 |

| # | ARTICLE | IF | CITATIONS |
|-----|---|-----|-----------|
| 181 | Introduction to the Topical Issue on Laser Dynamics and Nonlinear Photonics. European Physical Journal D, 2010, 58, 153-159. | 1.3 | 1 |
| 182 | Experimental study of the complex dynamics of semiconductor lasers with feedback via symbolic time-series analysis. Proceedings of SPIE, 2014, , . | 0.8 | 1 |
| 183 | Are the spikes emitted by a semiconductor laser with feedback similar to neuronal spikes?. , 2017, , . | | 1 |
| 184 | Climate Data Analysis. , 2019, , 27-47. | | 1 |
| 185 | MULTI-STABILITY AND TRANSIENT CHAOTIC DYNAMICS IN SEMICONDUCTOR LASERS WITH TIME-DELAYED OPTICAL FEEDBACK. World Scientific Series on Nonlinear Science, Series B, 2010, , 78-83. | 0.2 | 1 |
| 186 | Time crystal dynamics in a weakly modulated stochastic time delayed system. Scientific Reports, 2022, 12, 4914. | 3.3 | 1 |
| 187 | <title>Dynamics of vertical-cavity surface-emitting semiconductor lasers with polarization-isotropic optical feedback</title>. , 1999, , . | | 0 |
| 188 | <title>Modeling low-frequency fluctuations in semiconductor lasers with lateral carrier diffusion</title>. , 1999, , . | | 0 |
| 189 | <title>Laser and optics in Uruguay</title>. , 1999, , . | | 0 |
| 190 | Comparison of two types of synchronization of unidirectionally coupled external-cavity semiconductor lasers. , 2002, , . | | 0 |
| 191 | Effects of current modulation on the transverse-mode dynamics of vertical-cavity surface-emitting lasers with weak optical feedback. , 2003, , . | | 0 |
| 192 | Enhanced intensity fluctuations in a laser diode subject to optical feedback. , 2003, , . | | 0 |
| 193 | Anticipated synchronization in neuronal systems subject to noise. , 2003, 5114, 261. | | 0 |
| 194 | Different regimes of low-frequency fluctuations in vertical-cavity surface-emitting lasers. , 2003, 4942, 345. | | 0 |
| 195 | Distribution of residence times in bistable noisy systems with time-delayed feedback. , 2004, , . | | 0 |
| 196 | Bistable systems with noise and delay. , 2004, , . | | 0 |
| 197 | Synchronization via clustering in a small semiconductor laser network. , 2007, , . | | 0 |
| 198 | Polarization-switching of VCSELs with orthogonal optical feedback: experiments and theory. , 2007, , . | | 0 |

| # | ARTICLE | IF | CITATIONS |
|-----|--|----|-----------|
| 199 | Semiconductor lasers under orthogonal frequency-dependent optical feedback: experiments and theory. , 2007, , . | | 0 |
| 200 | Impact of noise on current-driven polarization switching of vertical-cavity surface-emitting lasers. , 2007, , . | | 0 |
| 201 | Resonances Induced by the Delay Time in Nonlinear Autonomous Oscillators with Feedback. , 0, , 291-300. | | 0 |
| 202 | Experimental and theoretical study of thermal effects on the dynamical hysteresis in VCSEL turn-on and turn-off. , 2010, , . | | 0 |
| 203 | Dynamics of vertical-cavity surface emitting lasers under selective polarization rotated feedback and coupling. , 2011, , . | | 0 |
| 204 | Diode laser operation under orthogonal feedback: Experiments and theory. , 2011, , . | | 0 |
| 205 | All optical implementation of a stochastic logic gate using a VCSEL with external optical injection. , 2011, , . | | 0 |
| 206 | All optical implementation of a stochastic logic gate using a VCSEL with external optical injection. , 2012, , . | | 0 |
| 207 | Extreme pulses in lasers with modulated losses. , 2013, , . | | 0 |
| 208 | Numerical study of polarization hysteresis in VCSELS subject to orthogonal injection. , 2013, , . | | 0 |
| 209 | Experimental and numerical study of the predictability of rogue waves in semiconductor lasers. , 2013, , . | | 0 |
| 210 | Suppression of Optical Rogue Waves in a CW Injected Semiconductor Laser With Current Modulation and Noise. , 2014, , . | | 0 |
| 211 | Effects of modulation in the complex dynamics of a semiconductor laser with feedback. , 2016, , . | | 0 |
| 212 | Analysis of the effects of periodic forcing in the spike rate and spike correlation's in semiconductor lasers with optical feedback. , 2016, , . | | 0 |
| 213 | Investigating optical complexity of the phase transition in the intensity of a fibre laser radiation. , 2016, , . | | 0 |
| 214 | Predictability of extreme intensity pulses in optically injected semiconductor lasers. , 2017, , . | | 0 |
| 215 | Characterisation of emergent properties during the transition to optical turbulence in a fibre laser. , 2017, , . | | 0 |
| 216 | On the predictability of optical rogue waves in a semiconductor laser with optical injection. , 2017, , . | | 0 |

| # | ARTICLE | IF | CITATIONS |
|-----|---|-----|-----------|
| 217 | The Climate System. , 2019, , 1-13. | | 0 |
| 218 | Climate Variability. , 2019, , 14-26. | | 0 |
| 219 | Climate Networks: Construction Methods and Analysis. , 2019, , 48-78. | | 0 |
| 220 | Computational Tools for Network Analysis. , 2019, , 79-93. | | 0 |
| 221 | Applications to Atmospheric Variability. , 2019, , 94-129. | | 0 |
| 222 | Applications to Oceanic Variability. , 2019, , 130-160. | | 0 |
| 223 | Climate Tipping Behavior. , 2019, , 161-197. | | 0 |
| 224 | Network-Based Prediction. , 2019, , 198-215. | | 0 |
| 225 | Success rate analysis of the response of an excitable laser to periodic perturbations. Chaos, 2020, 30, 081101. | 2.5 | 0 |
| 226 | Testing Critical Slowing Down as a Bifurcation Indicator in a Low-dissipation Laser System. , 2021, , . | | 0 |
| 227 | Noise-induced Resonance in Semiconductor Lasers with Optical Feedback. Nonlinear Phenomena and Complex Systems, 2004, , 241-247. | 0.0 | 0 |
| 228 | Origin, Control, and Predictability of Optical Rogue Waves in Semiconductor Lasers. , 2014, , . | | 0 |
| 229 | Predictability of Optical Rogue Waves in Optically Injected Semiconductor Lasers. , 2016, , . | | 0 |
| 230 | Incoherent light sources for speckle reduction in double pass ocular imaging. , 2017, , . | | 0 |
| 231 | Large-Scale Atmospheric Phenomena Under the Lens of Ordinal Time-Series Analysis and Information Theory Measures. , 2018, , 87-99. | | 0 |
| 232 | Optimal Entrainment of the Power Dropouts of a Semiconductor Laser with Optical Feedback to Pump Current Modulation. , 2018, , . | | 0 |
| 233 | Extreme Pulses in Optically Injected Semiconductor Lasers: Precursors and On-demand Generation. , 2018, , . | | 0 |
| 234 | Characterization of speckle patterns generated by a semiconductor laser with optical feedback for speckle reduction in retinal imaging instruments. , 2019, , . | | 0 |

| # | ARTICLE | IF | CITATIONS |
|-----|---|----|-----------|
| 235 | New algorithms to characterize and classify ophthalmic images. , 2020, , . | | 0 |
| 236 | Experimental study of the randomness of the dynamics of a laser diode under stimulated Brillouin scattering optical feedback. , 2021, , . | | 0 |