

Miguel A Muriel

List of Publications by Year in descending order

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136
papers

2,651
citations

236612

25
h-index

197535

49
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138
all docs

138
docs citations

138
times ranked

1300
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|--|-----|-----------|
| 1 | An efficient inverse scattering algorithm for the design of nonuniform fiber Bragg gratings. IEEE Journal of Quantum Electronics, 1999, 35, 1105-1115. | 1.0 | 290 |
| 2 | Real-time Fourier transformer based on fiber gratings. Optics Letters, 1999, 24, 1. | 1.7 | 257 |
| 3 | Temporal self-imaging effects: theory and application for multiplying pulse repetition rates. IEEE Journal of Selected Topics in Quantum Electronics, 2001, 7, 728-744. | 1.9 | 249 |
| 4 | Real-time optical spectrum analysis based on the time-space duality in chirped fiber gratings. IEEE Journal of Quantum Electronics, 2000, 36, 517-526. | 1.0 | 206 |
| 5 | Technique for multiplying the repetition rates of periodic trains of pulses by means of a temporal self-imaging effect in chirped fiber gratings. Optics Letters, 1999, 24, 1672. | 1.7 | 141 |
| 6 | Real-time spectrum analysis in microstrip technology. IEEE Transactions on Microwave Theory and Techniques, 2003, 51, 705-717. | 2.9 | 90 |
| 7 | Internal field distributions in fiber Bragg gratings. IEEE Photonics Technology Letters, 1997, 9, 955-957. | 1.3 | 83 |
| 8 | A new transfer matrix formalism for the analysis of fiber ring resonators: compound coupled structures for FDMA demultiplexing. Journal of Lightwave Technology, 1990, 8, 1904-1919. | 2.7 | 71 |
| 9 | Temporal Talbot effect in fiber gratings and its applications. Applied Optics, 1999, 38, 6700. | 2.1 | 69 |
| 10 | Transmission bistability in a double-coupler fiber ring resonator. Optics Letters, 1991, 16, 907. | 1.7 | 58 |
| 11 | Experimental demonstration of real-time Fourier transformation using linearly chirped fibre Bragg gratings. Electronics Letters, 1999, 35, 2223. | 0.5 | 53 |
| 12 | Apodized coupled resonator waveguides. Optics Express, 2007, 15, 10196. | 1.7 | 51 |
| 13 | Phase reconstruction from reflectivity in fiber Bragg gratings. Journal of Lightwave Technology, 1997, 15, 1314-1322. | 2.7 | 48 |
| 14 | Chirped delay lines in microstrip technology. IEEE Microwave and Wireless Components Letters, 2001, 11, 486-488. | 2.0 | 45 |
| 15 | Fiber Bragg grating as an optical filter tuned by a magnetic field. Optics Letters, 1997, 22, 603. | 1.7 | 44 |
| 16 | Single and double amplified recirculating delay lines as fibre-optic filters. Electronics Letters, 1992, 28, 1017-1019. | 0.5 | 40 |
| 17 | Design of an ultrafast all-optical differentiator based on a fiber Bragg grating in transmission. Optics Letters, 2008, 33, 2458. | 1.7 | 40 |
| 18 | Amplified fiber-optic recirculating delay lines. Journal of Lightwave Technology, 1994, 12, 294-305. | 2.7 | 38 |

| # | ARTICLE | IF | CITATIONS |
|----|---|-----|-----------|
| 19 | Spectral self-imaging effect by time-domain multilevel phase modulation of a periodic pulse train. Optics Letters, 2011, 36, 858. | 1.7 | 38 |
| 20 | Fiber grating filter for WDM systems: an improved design. IEEE Photonics Technology Letters, 1999, 11, 694-696. | 1.3 | 36 |
| 21 | Fiber grating synthesis by use of time-frequency representations. Optics Letters, 1998, 23, 1526. | 1.7 | 35 |
| 22 | Phase reconstruction from reflectivity in uniform fiber Bragg gratings. Optics Letters, 1997, 22, 93. | 1.7 | 33 |
| 23 | Optical bistability and differential amplification in nonlinear fiber resonators. IEEE Journal of Quantum Electronics, 1994, 30, 2578-2588. | 1.0 | 30 |
| 24 | Field distributions inside fiber gratings. IEEE Journal of Quantum Electronics, 1999, 35, 548-558. | 1.0 | 30 |
| 25 | Integrable high order UWB pulse photonic generator based on cross phase modulation in a SOA-MZI. Optics Express, 2013, 21, 22911. | 1.7 | 29 |
| 26 | Fiber Bragg grating period reconstruction using time-frequency signal analysis and application to distributed sensing. Journal of Lightwave Technology, 2001, 19, 646-654. | 2.7 | 28 |
| 27 | Ultrafast all-optical integrator based on a fiber Bragg grating: proposal and design. Optics Letters, 2008, 33, 1348. | 1.7 | 23 |
| 28 | Pulse distortion in optical fibers and waveguides with arbitrary chromatic dispersion. Journal of the Optical Society of America B: Optical Physics, 2003, 20, 2523. | 0.9 | 22 |
| 29 | Microwave V-I transmission matrix formalism for the analysis of photonic circuits: application to fiber Bragg gratings. Journal of Lightwave Technology, 2003, 21, 3125-3134. | 2.7 | 21 |
| 30 | Periodic Time-Domain Modulation for the Electrically Tunable Control of Optical Pulse Train Envelope and Repetition Rate Multiplication. IEEE Journal of Selected Topics in Quantum Electronics, 2012, 18, 377-383. | 1.9 | 18 |
| 31 | Temporal self-imaging effect for periodically modulated trains of pulses. Optics Express, 2014, 22, 15251. | 1.7 | 18 |
| 32 | All-pass optical structures for repetition rate multiplication. Optics Express, 2008, 16, 11162. | 1.7 | 16 |
| 33 | Flat-top pulse generation based on a fiber Bragg grating in transmission. Optics Letters, 2009, 34, 752. | 1.7 | 15 |
| 34 | Grating Design of Oppositely Chirped FBGs for Pulse Shaping. IEEE Photonics Technology Letters, 2007, 19, 435-437. | 1.3 | 14 |
| 35 | Temporal self-imaging effect for chirped laser pulse sequences: Repetition rate and duty cycle tunability. Optics Communications, 2005, 253, 156-163. | 1.0 | 13 |
| 36 | Ultrafast all-optical Nth-order differentiator based on chirped fiber Bragg gratings. Optics Express, 2007, 15, 7196. | 1.7 | 13 |

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|----|---|-----|-----------|
| 37 | Spectral behavior of a low-cost all-fiber component based on untapered multifiber unions. IEEE Photonics Technology Letters, 1989, 1, 184-187. | 1.3 | 12 |
| 38 | Simultaneous ultrafast optical pulse train bursts generation and shaping based on Fourier series developments using superimposed fiber Bragg gratings. Optics Express, 2007, 15, 10878. | 1.7 | 12 |
| 39 | Repetition-rate multiplication using a single all-pass optical cavity. Optics Letters, 2008, 33, 962. | 1.7 | 12 |
| 40 | Reduction of polarization related effects in superimposed fiber Bragg gratings. Applied Optics, 2009, 48, 1635. | 2.1 | 12 |
| 41 | Bistability. Applied Physics B, Photophysics and Laser Chemistry, 1982, 28, 131-141. | 1.5 | 11 |
| 42 | Analysis of double-parallel amplified recirculating optical-delay lines. Applied Optics, 1994, 33, 1015. | 2.1 | 11 |
| 43 | Optical pulse sequence transmission through single-mode fibers: interference signal analysis. Journal of Lightwave Technology, 1991, 9, 27-36. | 2.7 | 10 |
| 44 | New code division multiple access encoder-decoder. Optical Engineering, 1993, 32, 481. | 0.5 | 10 |
| 45 | Growth Modeling of Fiber Gratings: A Numerical Investigation. Fiber and Integrated Optics, 2002, 21, 451-463. | 1.7 | 10 |
| 46 | Study of optical pulses - Fiber gratings interaction by means of joint time-frequency signal representations. Journal of Lightwave Technology, 2003, 21, 2931-2941. | 2.7 | 10 |
| 47 | Optical differential amplification in nonlinear fibre ring resonator. Electronics Letters, 1991, 27, 1810. | 0.5 | 9 |
| 48 | Double-cavity fiber structures as all optical timing extraction circuits for gigabit networks. Fiber and Integrated Optics, 1993, 12, 247-255. | 1.7 | 9 |
| 49 | Reconstruction of fiber grating period profiles by use of Wigner-Ville distributions and spectrograms. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2000, 17, 2496. | 0.8 | 9 |
| 50 | Reconstructing arbitrary strain distributions within fiber gratings by time-frequency signal analysis. Optics Letters, 2000, 25, 698. | 1.7 | 9 |
| 51 | Phase-reconstruction in photonic crystals from S-parameter magnitude in microstrip technology. Optical and Quantum Electronics, 2007, 39, 321-331. | 1.5 | 9 |
| 52 | UWB Pulses Generation and Modulation Through a Customized FBG-Based Photonic Device. IEEE Photonics Technology Letters, 2016, 28, 2319-2322. | 1.3 | 9 |
| 53 | Design of two-mode interference wavelength filter utilising symmetric three-mode structure. Electronics Letters, 1988, 24, 1525. | 0.5 | 8 |
| 54 | Measurement of transmitted power in untapered multifibre unions: oscillatory spectral behaviour. Electronics Letters, 1989, 25, 843. | 0.5 | 7 |

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|----|---|-----|-----------|
| 55 | Real-time Fourier transformations performed simultaneously over multiwavelength signals. IEEE Photonics Technology Letters, 2001, 13, 55-57. | 1.3 | 7 |
| 56 | Scalable UWB photonic generator based on the combination of doublet pulses. Optics Express, 2014, 22, 15346. | 1.7 | 7 |
| 57 | Design and application of double amplified recirculating ring structure for hybrid fibre buses. Optical and Quantum Electronics, 1995, 27, 847-857. | 1.5 | 6 |
| 58 | Polarization effects in short- and long-period fibre gratings: a generalized approach. Journal of Optics, 2004, 6, S45-S51. | 1.5 | 6 |
| 59 | On the Measurement of Fiber Bragg Grating's Phase Responses and the Applicability of Phase Reconstruction Methods. IEEE Transactions on Instrumentation and Measurement, 2011, 60, 1416-1422. | 2.4 | 6 |
| 60 | A novel electrically tunable dispersion compensation system. IEEE Journal of Selected Topics in Quantum Electronics, 1999, 5, 1332-1338. | 1.9 | 5 |
| 61 | Emulated single-mode fiber-optic link by use of a linearly chirped fiber Bragg grating. IEEE Journal of Selected Topics in Quantum Electronics, 1999, 5, 1345-1352. | 1.9 | 5 |
| 62 | Simultaneous multiwavelength real-time optical spectrum analysis. Applied Optics, 2001, 40, 3831. | 2.1 | 5 |
| 63 | Synthesis of 1D Bragg gratings by a layer-aggregation method. Optics Letters, 2007, 32, 2312. | 1.7 | 5 |
| 64 | UWB Monocycle Generator Based on the Non-Linear Effects of an SOA-Integrated Structure. IEEE Photonics Technology Letters, 2014, 26, 690-693. | 1.3 | 5 |
| 65 | Integrated 16-ps Pulse Generator Based on a Reflective SOA-EAM for UWB Schemes. IEEE Photonics Technology Letters, 2016, 28, 2180-2182. | 1.3 | 5 |
| 66 | Liquid-crystal electro-optic modulator based on electrohydrodynamic effects. Optics Letters, 1980, 5, 494. | 1.7 | 4 |
| 67 | Electrooptical behavior of twisted-wedge nematic structures. Applied Optics, 1984, 23, 2159. | 2.1 | 4 |
| 68 | Depressed-index waveguides (DIW's) in integrated optics. Journal of Lightwave Technology, 1990, 8, 1779-1791. | 2.7 | 4 |
| 69 | Measurement technique for characterisation of $2\bar{A}$ -2 couplers. Electronics Letters, 1992, 28, 1303. | 0.5 | 4 |
| 70 | Acoustic Quasi-Crystals. Europhysics Letters, 1993, 21, 915-920. | 0.7 | 4 |
| 71 | Low threshold optical differential amplification using a fibre amplifier in a nonlinear ring resonator. Electronics Letters, 1993, 29, 1249. | 0.5 | 4 |
| 72 | Performance parameters and applications of a modified amplified recirculating delay line. Fiber and Integrated Optics, 1995, 14, 347-358. | 1.7 | 4 |

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|----|--|-----|-----------|
| 73 | Model of an openable Faraday-effect hybrid-current optical transducer based on a square-shaped structure with internal mirror. <i>Applied Optics</i> , 1997, 36, 6242. | 2.1 | 4 |
| 74 | WDM channel selector based on transmissive chirped moiré fibre grating. <i>Electronics Letters</i> , 1999, 35, 386. | 0.5 | 4 |
| 75 | Hermite-Gauss series expansions applied to arrayed waveguide gratings. <i>IEEE Photonics Technology Letters</i> , 2005, 17, 2331-2333. | 1.3 | 4 |
| 76 | Ultrafast all-optical Nth-order differentiator and simultaneous repetition-rate multiplier of periodic pulse train. <i>Optics Express</i> , 2007, 15, 12102. | 1.7 | 4 |
| 77 | WDM compatible and electrically tunable SPE-OCDMA system based on the temporal self-imaging effect. <i>Optics Letters</i> , 2011, 36, 400. | 1.7 | 4 |
| 78 | UWB Doublet Generation Employing Cross-Phase Modulation in a Semiconductor Optical Amplifier Mach-Zehnder Interferometer. <i>IEEE Photonics Journal</i> , 2013, 5, 7101106-7101106. | 1.0 | 4 |
| 79 | Third-Order Dispersion in Linearly Chirped Bragg Gratings and Its Compensation. <i>Fiber and Integrated Optics</i> , 2000, 19, 367-382. | 1.7 | 3 |
| 80 | Technique for simultaneously multiplying the repetition rate of multiwavelength optical pulse trains. <i>IEEE Photonics Technology Letters</i> , 2001, 13, 1358-1360. | 1.3 | 3 |
| 81 | Highly Accurate Synthesis of Fiber and Waveguide Bragg Gratings by an Impedance Reconstruction Layer-Aggregation Method. <i>IEEE Journal of Quantum Electronics</i> , 2007, 43, 889-898. | 1.0 | 3 |
| 82 | Optical pulse sequence transmission through monomode fibres under second-and third-order dispersion. <i>Electronics Letters</i> , 1988, 24, 1252. | 0.5 | 3 |
| 83 | Electrohydrodynamic Behavior in Twisted-Wedge Nematic Structures. <i>Molecular Crystals and Liquid Crystals</i> , 1983, 98, 183-191. | 0.9 | 2 |
| 84 | <title>Laser Pulse Shaping With Liquid Crystals</title>. , 1983, , . | | 2 |
| 85 | Investigation on spectral behaviour of novel direct coupling compound fibre ring resonator. <i>Electronics Letters</i> , 1990, 26, 772. | 0.5 | 2 |
| 86 | Computer simulation of an all-optical coherent code division multiple-access network. <i>Fiber and Integrated Optics</i> , 1992, 11, 1-24. | 1.7 | 2 |
| 87 | Acoustic-field fibre-optic sensor. <i>Sensors and Actuators A: Physical</i> , 1993, 37-38, 489-493. | 2.0 | 2 |
| 88 | Experimental Demonstration of the Temperature Influence on an Optical Universal Compensator for Polarization Changes Induced by Birefringence on a Retracing Beam. <i>Optical Fiber Technology</i> , 1997, 3, 347-355. | 1.4 | 2 |
| 89 | Real-Time Spectrum Analysis in Microstrip Technology. , 2001, , . | | 2 |
| 90 | Analysis of superimposed fiber Bragg gratings using the microwave V-I transmission matrix formalism. <i>IEEE Photonics Technology Letters</i> , 2005, 17, 2343-2345. | 1.3 | 2 |

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|-----|---|-----|-----------|
| 91 | Real-time optical spectrum analyzers operating with spectrally incoherent broadband continuous-wave light source. <i>Optics Communications</i> , 2007, 273, 320-323. | 1.0 | 2 |
| 92 | Repetition Rate Multiplication Using All-Pass Optical Structures. <i>Optics and Photonics News</i> , 2008, 19, 37. | 0.4 | 2 |
| 93 | Proposed flat-topped pulses bursts generation using all-pass multi-cavity structures. <i>Optics Express</i> , 2009, 17, 13875. | 1.7 | 2 |
| 94 | Bandlimited Airy Pulses for Invariant Propagation in Single-Mode Fibers. <i>Journal of Lightwave Technology</i> , 2012, 30, 3660-3666. | 2.7 | 2 |
| 95 | Experimental Electrically Reconfigurable Time-Domain Spectral Amplitude Encoding/Decoding in an Optical Code Division Multiple Access System. <i>Fiber and Integrated Optics</i> , 2013, 32, 324-335. | 1.7 | 2 |
| 96 | Scalable High-Order UWB Pulse Generation Employing an FBG-Based Photonic Superstructure. <i>IEEE Photonics Technology Letters</i> , 2015, 27, 2146-2149. | 1.3 | 2 |
| 97 | Optically Induced Modulation of a Laser Beam in Nematic Liquid Crystals Structures. <i>Molecular Crystals and Liquid Crystals</i> , 1983, 99, 1-9. | 0.9 | 1 |
| 98 | Light Level To Electrical Frequency Conversion With Hybrid Optical Bistable Devices. , 1985, 0492, 397. | | 1 |
| 99 | Electro-optically tunable wavelength demultiplexer using depressed index waveguides. <i>Electronics Letters</i> , 1991, 27, 195. | 0.5 | 1 |
| 100 | New behavior in nonideal couplers. <i>Applied Optics</i> , 1992, 31, 4332. | 2.1 | 1 |
| 101 | Signal processing techniques applied to fiber grating synthesis. , 1999, , BA1. | | 1 |
| 102 | Real-Time Fourier Transformer System Using Transmissive Fiber Gratings. <i>Fiber and Integrated Optics</i> , 2000, 19, 439-453. | 1.7 | 1 |
| 103 | Microstrip Chirped Delay Lines based on Photonic Band-Gap Structures. , 2002, , . | | 1 |
| 104 | Phase Reconstruction for the Frequency Response Measurement of FBGs. , 2007, , . | | 1 |
| 105 | Spectrally Efficient Phase Encoded Optical CDMA System in Time Domain. , 2008, , . | | 1 |
| 106 | Experimental demonstration of a FBG-based temporal optical pulse shaping scheme dual to spatial arrangements for its use in OCDMA systems. , 2009, , . | | 1 |
| 107 | Spectrally efficient optical CDMA system based on chromatic dispersion for phase coding of individual spectral lines in the time domain. <i>Proceedings of SPIE</i> , 2009, , . | 0.8 | 1 |
| 108 | High order UWB pulses generation based on a scalable phase-to-intensity technique. , 2015, , . | | 1 |

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| 109 | Dual-channel real-time Fourier transformer based on chirped Moiré fiber grating. , 1999, , . | | 1 |
| 110 | Total switching of unpolarized light with an electrooptic liquid-crystal device. IEEE Journal of Quantum Electronics, 1981, 17, 2424-2426. | 1.0 | 0 |
| 111 | <title>Digital Light Beam Deflector With Liquid Crystals</title>. , 1981, , . | | 0 |
| 112 | Analysis of the interference signal arising from the transmission of a pulse sequence through a monomode fibre. Electronics Letters, 1990, 26, 149. | 0.5 | 0 |
| 113 | An acoustic quasi-crystalline wave-field. Chaos, Solitons and Fractals, 1993, 3, 265-268. | 2.5 | 0 |
| 114 | Design of a lossy tunable wavelength demultiplexer utilizing MgO:Ti:LiNbO ₃ /depressed index waveguides. Journal of Lightwave Technology, 1993, 11, 2080-2086. | 2.7 | 0 |
| 115 | Optical Amplified Recirculating Delay Lines Transient Response Effect on Hybrid Fiber Buses. Optical Fiber Technology, 1997, 3, 65-71. | 1.4 | 0 |
| 116 | A microwave balanced mixer using an automatically biased dual-drive intensity electro-optic modulator. Microwave and Optical Technology Letters, 1998, 18, 58-63. | 0.9 | 0 |
| 117 | Time-frequency representation applied to fiber gratings synthesis. , 0, , . | | 0 |
| 118 | Sidelobes suppression in fiber gratings: a new design. , 1998, 3491, 124. | | 0 |
| 119 | Chirped fiber grating-based fiber optic communication evaluator: design and implementation. Optical Engineering, 1999, 38, 1640. | 0.5 | 0 |
| 120 | Reconstruction of Fiber Gratings by Use Of Time-Frequency Signal Analysis: Application to Distributed Sensing. Optics and Photonics News, 2000, 11, 41. | 0.4 | 0 |
| 121 | Synchronized Multiplication Of Repetition Rates in Multiwavelength Optical Pulse Trains. Optics and Photonics News, 2001, 12, 47. | 0.4 | 0 |
| 122 | Phase- Retrieval From Magnitude-Data In Microstrip Electromagnetic Crystals. , 2006, , . | | 0 |
| 123 | Experimental demonstration of the reduction of PDL and DGD in Fibre Bragg Gratings by using a twisted-fibre for the inscription. , 2008, , . | | 0 |
| 124 | Optical pulse train repetition rate and envelope control based on the optical fourier transform. , 2009, , . | | 0 |
| 125 | Experimental Demonstration of a FBC-Based Temporal Optical Pulse Shaping Scheme Dual to Spatial Arrangements for its Use in OCDMA Systems. , 2009, , . | | 0 |
| 126 | Optical Code Division Multiple Access coder/decoder pairs based on temporal optical pulse shaping with fiber Bragg Gratings and electrooptic modulators. , 2010, , . | | 0 |

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|-----|--|-----|-----------|
| 127 | Optical signal processing with electrooptic modulators and dispersion. , 2011, , . | | 0 |
| 128 | Electrically Tunable Delay for Trains of Optical Pulses. , 2012, , . | | 0 |
| 129 | Generation of an UWB monocycle employing cross-phase modulation in a SOA-MZ interferometer. , 2013, , . | | 0 |
| 130 | UWB doublet generation in an integrated semiconductor optical amplifier Mach-Zehnder interferometer. , 2013, , . | | 0 |
| 131 | Characterization of Microring Filters for Differential Group Delay Applications. Journal of Lightwave Technology, 2017, 35, 2943-2947. | 2.7 | 0 |
| 132 | Programmable Retiming of an Optical Clock Signal Using the Temporal Talbot Effect. IEEE Photonics Technology Letters, 2019, 31, 2007-2010. | 1.3 | 0 |
| 133 | Spectrally Efficient Optical CDMA System Based on Chromatic Dispersion for Phase Coding of Individual Spectral Lines in the Time Domain. , 2009, , . | | 0 |
| 134 | Electrically Tunable Delay for Trains of Optical Pulses. , 2012, , . | | 0 |
| 135 | Synthesis of Arbitrary Group Delay Responses with All-Pass Optical Cavities Structures. , 2012, , . | | 0 |
| 136 | Electrically tunable delay line for trains of optical pulses based on the temporal self-imaging effect. Optica Pura Y Aplicada, 2012, 45, 113-119. | 0.0 | 0 |