# Vitaly F RodrÃ-guez-Esquerre

## List of Publications by Year
in descending order

| | | | |
|---|---|---|---|
| 106<br>papers | 491<br>citations | 758635<br>12<br>h-index | 752256<br>20<br>g-index |
| 106<br>all docs | 106<br>docs citations | 106<br>times ranked | 274<br>citing authors |

| # | Article | IF | Citations |
|---|---------|----|-----------|
| 1 | Metamaterial waveguide modeling by a genetic algorithm-based artificial neural network. , 2022, , . | | 0 |
| 2 | Design of Planar Reconfigurable, Tunable, and Wide Angle Resonant Absorbers for Applications in the IR Spectrum. Advanced Theory and Simulations, 2021, 4, 2100002. | 1.3 | 5 |
| 3 | Wavelength-Selective Near Unity Absorber Based on Fabry-PÃ©rot Nanoresonators. Journal of Microwaves, Optoelectronics and Electromagnetic Applications, 2021, 20, 219-227. | 0.4 | 2 |
| 4 | Design of hybrid narrow-band plasmonic absorber based on chalcogenide phase change material in the infrared spectrum. Scientific Reports, 2021, 11, 21919. | 1.6 | 4 |
| 5 | Metamaterial Waveguide Modelling by an Artificial Neural Network with Genetic Algorithm. , 2021, , . | | 0 |
| 6 | Omnidirectional broadband absorber for visible light based on a modulated plasmonic multistack grating. Optics and Laser Technology, 2020, 124, 105981. | 2.2 | 13 |
| 7 | Inverse Design of a Taper by Scatter Search Metaheuristic. IEEE Photonics Journal, 2020, 12, 1-9. | 1.0 | 2 |
| 8 | Metamaterial waveguides as integrated optics sensor. Optik, 2020, 212, 164756. | 1.4 | 3 |
| 9 | Inverse Design of Tapers by Bio-Inspired Algorithms. Journal of Microwaves, Optoelectronics and Electromagnetic Applications, 2020, 19, 39-49. | 0.4 | 0 |
| 10 | Design of planar and wideangle resonant color absorbers for applications in the visible spectrum. Scientific Reports, 2019, 9, 7045. | 1.6 | 7 |
| 11 | Engineering the dispersion properties of multilayered periodic segmented waveguides and nanowire waveguides. Optical Engineering, 2019, 58, 1. | 0.5 | 0 |
| 12 | Optical properties of liquid crystal periodically segmented waveguides. , 2019, , . | | 0 |
| 13 | Narrowband polarization-dependent fractal based plasmonic absorbers. , 2019, , . | | 0 |
| 14 | Analysis of the Propagation Properties of 90°-bend Periodic Segmented Waveguides Using the 2D Finite Element Method. Journal of Microwaves, Optoelectronics and Electromagnetic Applications, 2018, 17, 32-43. | 0.4 | 1 |
| 15 | Polarization independent metallic-dielectric trapezoidal grating for multiband absorption in the visible. Optical and Quantum Electronics, 2018, 50, 1. | 1.5 | 0 |
| 16 | Wide-angle filters based on nanoresonators for the visible spectrum. Applied Optics, 2018, 57, 6755. | 0.9 | 11 |
| 17 | Sensors based on Metamaterial Cladded Waveguides. , 2018, , . | | 1 |
| 18 | Scatter Search Applied to the Taper Optimization. , 2018, , . | | 0 |

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| 19 | Ultrathin all-dielectric Metasurface for Infrared Waves Focusing. , 2018, , . | | 0 |
| 20 | Analysis of Fibonacci Hypercrystal Metamaterials. , 2018, , . | | 0 |
| 21 | Optical Logic Gates. , 2018, , . | | 0 |
| 22 | Visible/Infrared narrow-band Resonant Absorber. , 2018, , . | | 0 |
| 23 | Optical planar filter for visible RGB resonance. , 2018, , . | | 0 |
| 24 | Ultra-broadband plasmonic groove absorbers for visible light optimized by genetic algorithms. , 2018, , . | | 0 |
| 25 | Broadband polarization-independent absorber based on multilayered metamaterial. , 2018, , . | | 0 |
| 26 | Propagation properties of Fibonacci hypercrystal based on metamaterials. , 2018, , . | | 1 |
| 27 | Metaheuristic optimization of tapers for coupling to periodical subwavelength waveguides. , 2018, , . | | 0 |
| 28 | Asymmetrical absorption in plasmonic devices optimized by genetic algorithms. , 2018, , . | | 0 |
| 29 | Ultra-broadband plasmonic groove absorbers for visible light optimized by genetic algorithms. OSA Continuum, 2018, 1, 796. | 1.8 | 3 |
| 30 | Design of dielectric to plasmonic waveguide power transfer couplers. , 2017, , . | | 1 |
| 31 | Polarization independent asymmetric light absorption in plasmonic nanostructure. , 2017, , . | | 0 |
| 32 | Polarization-independent multi-peak plasmonic absorber. , 2017, , . | | 0 |
| 33 | Low-crosstalk optimization in 2D segmented waveguide crossings by evolutionary algorithms. , 2017, , . | | 0 |
| 34 | Guided modes analysis in metamaterial bounded optical waveguides. , 2017, , . | | 1 |
| 35 | Wideangle plasmonic filter for visible light applications. , 2017, , . | | 0 |
| 36 | Subwavelength 2D segmented waveguide taper light coupling optimization by evolutionary algorithms. , 2017, , . | | 0 |

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|---|---------|----|-----------|
| 37 | Ultrabroadband polarization-independent absorber based on hyperbolic metamaterial. , 2017, , . | | 0 |
| 38 | Anomalous refraction of infrared waves through ultrathin all dielectric metasurfaces. , 2017, , . | | 0 |
| 39 | Power Coupling Optimization in Periodical Segmented Waveguides by Bio-Inspired Algorithms. , 2016, , . | | 0 |
| 40 | Propagation properties of metallic dielectric cladded waveguides. , 2016, , . | | 2 |
| 41 | Optical properties of nanowire metamaterials with gain. Optics Communications, 2016, 379, 25-31. | 1.0 | 3 |
| 42 | Artificial immune system optimisation of complete bandgap of bidimensional anisotropic photonic crystals. IET Optoelectronics, 2015, 9, 333-340. | 1.8 | 3 |
| 43 | Power Coupling Optimization in 2D Waveguides by Evolutionary Algorithms. IEEE Photonics Technology Letters, 2015, 27, 1561-1564. | 1.3 | 11 |
| 44 | 2D taper segmented design by differential evolution algorithm. , 2015, , . | | 0 |
| 45 | Propagation characteristics of multilayered subwavelength gratings composed of metallic nanoparticles. Proceedings of SPIE, 2015, , . | 0.8 | 0 |
| 46 | Broadband absorption properties of apodized nanometric gratings. Optical Engineering, 2015, 54, 085103. | 0.5 | 0 |
| 47 | Artificial Immune Network Design of Optical Multiplexers/Demultiplexers. Journal of Microwaves, Optoelectronics and Electromagnetic Applications, 2015, 14, 229-237. | 0.4 | 2 |
| 48 | High-efficient and broadband nanoabsorbers and nanoreflectors based on metallic dielectric periodical structures. , 2014, , . | | 0 |
| 49 | Power Coupling Optimization by Artificial Immune System. , 2014, , . | | 2 |
| 50 | Non-reciprocal optical devices based on linear silicon photonic crystals. , 2014, , . | | 1 |
| 51 | Analysis of Straight Periodic Segmented Waveguide Using the 2-D Finite Element Method. Journal of Lightwave Technology, 2014, 32, 2163-2169. | 2.7 | 17 |
| 52 | Multimode interferometers based on non-conventional waveguides. Proceedings of SPIE, 2014, , . | 0.8 | 1 |
| 53 | Approximated Analysis of Multimode Interferometers Based on Non-Conventional Waveguides. , 2014, , . | | 0 |
| 54 | Design and Chromatic Aberration Analysis of Plasmonic Lenses Using the Finite Element Method. Journal of Lightwave Technology, 2013, 31, 1114-1119. | 2.7 | 10 |

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| 55 | Coupling properties of directional couplers based on special waveguides. Microwave and Optical Technology Letters, 2013, 55, 949-951. | 0.9 | 2 |
| 56 | Thermal effects in photonic crystals resonant cavities. , 2013, , . | | 0 |
| 57 | Artificial Neural Networks for the Chromatic Dispersion Prediction of Photonic Crystal Fibers. Microwave and Optical Technology Letters, 2013, 55, 2179-2181. | 0.9 | 8 |
| 58 | Artificial immune systems optimization of the absolute bandgap of photonic crystals. , 2013, , . | | 3 |
| 59 | Analysis of Multimode Interferometers based on subwavelength grating waveguides. , 2013, , . | | 1 |
| 60 | Geometry dependence of light propagation through subwavelength metallic gratings. , 2013, , . | | 0 |
| 61 | Photonic Bandgap Inspection in 2-D Sublattices. Journal of Lightwave Technology, 2012, 30, 2508-2513. | 2.7 | 2 |
| 62 | Numerical Analysis of Periodic Segmented Waveguides Directional Couplers. , 2012, , . | | 8 |
| 63 | Coupling Properties of Novel Directional Couplers Composed of Silicon Nanowires Waveguides. , 2012, , . | | 6 |
| 64 | Propagation characteristics analysis of subwavelength grating waveguides. , 2011, , . | | 4 |
| 65 | Theoretical analysis of the minimization of thermal effects on the coupling length of directional couplers. , 2011, , . | | 1 |
| 66 | Analysis and design of microstrip antennas by Artificial Neural Networks. , 2011, , . | | 3 |
| 67 | Analysis of micro-to-nano coupling techniques. , 2011, , . | | 0 |
| 68 | Analysis and design of directional couplers based on Al<inf>x</inf>Ga<inf>1&#x2212;x</inf>As by using an efficient neural networks: A design tool simulation implemented in C/C&#x002B;&#x002B;. , 2011, , . | | 0 |
| 69 | Periodic segmented waveguide analysis by using the 2D finite element method. , 2011, , . | | 1 |
| 70 | Pedagogical microwave design of photonic crystal waveguides. , 2011, , . | | 0 |
| 71 | Photonic band gaps exploration in air/silicon sub-lattices unitary cells. , 2011, , . | | 0 |
| 72 | Strategy of Search and Refinement by GA in 2-D Photonic Crystals With Absolute PBG. IEEE Journal of Quantum Electronics, 2011, 47, 431-438. | 1.0 | 26 |

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| 73 | Exploring photonic band gaps in sub-lattices in unitary cells in air/silicon. , 2011, , . | | 1 |
| 74 | Simulation of segmented waveguide crossing using the 2D finite element method. , 2011, , . | | 0 |
| 75 | Efficient Neural Network Modeling of Photonic Crystal Fiber Chromatic Dispersion. , 2010, , . | | 5 |
| 76 | Ge-Doped Defect-Core Microstructured Fiber Design by Genetic Algorithm for Residual Dispersion Compensation. IEEE Photonics Technology Letters, 2010, 22, 1337-1339. | 1.3 | 51 |
| 77 | Neural Network Analysis and Design of Directional Couplers. , 2010, , . | | 1 |
| 78 | Metallic-Dielectric Lenses Chromatic Aberration Analysis. , 2010, , . | | 0 |
| 79 | Analysis and design of subwavelength focusing by cylindrical lenses. , 2009, , . | | 0 |
| 80 | Step index holey fiber for ultra wideband residual chromatic dispersion compensation. , 2009, , . | | 2 |
| 81 | Photonic crystal fiber design with Ge-doped core for residual chromatic dispersion compensation. , 2009, , . | | 3 |
| 82 | Novel FEM Approach for the Analysis of Cylindrically Symmetric Photonic Devices. Journal of Lightwave Technology, 2009, 27, 4717-4721. | 2.7 | 8 |
| 83 | 2D Photonic Crystal Layers in Antimony-based films. AIP Conference Proceedings, 2008, , . | 0.3 | 0 |
| 84 | Temperature Dependence Analysis of Photonic Devices. , 2008, , . | | 4 |
| 85 | A proposal of random excitation for the elements of a circular array. , 2007, , . | | 0 |
| 86 | Numerical analysis of surface plasmon polariton interference in a single mode dielectric waveguide for TM modes. , 2007, , . | | 0 |
| 87 | Coupling characteristics of step index holey fiber. , 2007, , . | | 0 |
| 88 | Photonic crystal band gap optimization by generic algorithms. , 2007, , . | | 6 |
| 89 | Air core waveguides composed by elliptical metallic nanostructures operating at optical frequencies. , 2006, , . | | 2 |
| 90 | Surface plasmon polariton propagation in y-shaped metallic channels junctions. , 2006, , . | | 1 |

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| 91 | Band gap of hexagonal 2D photonic crystals with elliptical holes recorded by interference lithography. Optics Express, 2006, 14, 4873. | 1.7 | 61 |
| 92 | Iterative-solvers for numerical analysis of photonic devices. Microwave and Optical Technology Letters, 2006, 48, 1182-1186. | 0.9 | 2 |
| 93 | Novel frequency domain finite element formulation for optical circuits in nonlinear photonic crystals. , 2006, , . | | 0 |
| 94 | Ultra-flattened chromatic dispersion using a step index holey fiber. , 2006, , . | | 0 |
| 95 | Analysis of optical switching circuits based on nonlinear photonic crystals by the frequency domain finite element method. , 2006, , . | | 1 |
| 96 | Step Index Holey Fiber for Ultra-flattened Chromatic Dispersion. , 2006, , . | | 5 |
| 97 | Frequency-dependent envelope finite-element time-domain analysis of dispersion materials. Microwave and Optical Technology Letters, 2005, 44, 13-16. | 0.9 | 16 |
| 98 | Power splitters for waveguides composed by ultralow refractive index metallic nanostructures. Applied Physics Letters, 2005, 87, 091101. | 1.5 | 14 |
| 99 | Finite-element analysis of photonic Crystal cavities: time and frequency domains. Journal of Lightwave Technology, 2005, 23, 1514-1521. | 2.7 | 21 |
| 100 | <title>Design and fabrication of 2D photonic crystals by holographic lithography</title>. , 2004, 5622, 896. | | 0 |
| 101 | Finite-Element Time-Domain Analysis of 2-D Photonic Crystal Resonant Cavities. IEEE Photonics Technology Letters, 2004, 16, 816-818. | 1.3 | 19 |
| 102 | Novel numerical method for the analysis of 2D photonic crystals: the cell method. Optics Express, 2002, 10, 1299. | 1.7 | 44 |
| 103 | Novel time-domain step-by-step scheme for integrated optical applications. IEEE Photonics Technology Letters, 2001, 13, 311-313. | 1.3 | 37 |
| 104 | Genetic-algorithm and finite-element approach to the synthesis of dispersion-flattened fiber. Microwave and Optical Technology Letters, 2001, 31, 245-248. | 0.9 | 15 |
| 105 | Novel time-domain wave propagation scheme applied to integrated optics. , 2000, , . | | 0 |
| 106 | Power splitters for ultralow refractive index metallic nanostructures waveguides. , 0, , . | | 0 |