# Maxim A Yurkin

List of Publications by Year
in descending order

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|---|---|---|---|
| 89 papers | 3,231 citations | 236925 25 h-index | 149698 56 g-index |
| 93 all docs | 93 docs citations | 93 times ranked | 2162 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | The discrete dipole approximation: An overview and recent developments. Journal of Quantitative Spectroscopy and Radiative Transfer, 2007, 106, 558-589. | 2.3 | 721 |
| 2 | The discrete-dipole-approximation code ADDA: Capabilities and known limitations. Journal of Quantitative Spectroscopy and Radiative Transfer, 2011, 112, 2234-2247. | 2.3 | 539 |
| 3 | The discrete dipole approximation for simulation of light scattering by particles much larger than the wavelength. Journal of Quantitative Spectroscopy and Radiative Transfer, 2007, 106, 546-557. | 2.3 | 235 |
| 4 | Comparison between discrete dipole implementations and exact techniques. Journal of Quantitative Spectroscopy and Radiative Transfer, 2007, 106, 417-436. | 2.3 | 139 |
| 5 | First-principles modeling of electromagnetic scattering by discrete and discretely heterogeneous random media. Physics Reports, 2016, 632, 1-75. | 25.6 | 104 |
| 6 | Experimental and theoretical study of light scattering by individual mature red blood cells by use of scanning flow cytometry and a discrete dipole approximation. Applied Optics, 2005, 44, 5249. | 2.1 | 71 |
| 7 | Systematic comparison of the discrete dipole approximation and the finite difference time domain method for large dielectric scatterers. Optics Express, 2007, 15, 17902. | 3.4 | 71 |
| 8 | Is there a difference between T- and B-lymphocyte morphology?. Journal of Biomedical Optics, 2009, 14, 064036. | 2.6 | 71 |
| 9 | Application of the discrete dipole approximation to very large refractive indices: Filtered coupled dipoles revived. Physical Review E, 2010, 82, 036703. | 2.1 | 71 |
| 10 | On the concept of random orientation in far-field electromagnetic scattering by nonspherical particles. Optics Letters, 2017, 42, 494. | 3.3 | 71 |
| 11 | Convergence of the discrete dipole approximation I Theoretical analysis. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2006, 23, 2578. | 1.5 | 59 |
| 12 | Accuracy of the discrete dipole approximation for simulation of optical properties of gold nanoparticles. Journal of Nanophotonics, 2010, 4, 041585. | 1.0 | 56 |
| 13 | Comparison between the pseudo-spectral time domain method and the discrete dipole approximation for light scattering simulations. Optics Express, 2012, 20, 16763. | 3.4 | 49 |
| 14 | Light-scattering flow cytometry for identification and characterization of blood microparticles. Journal of Biomedical Optics, 2012, 17, 057006. | 2.6 | 47 |
| 15 | Accurate measurement of volume and shape of resting and activated blood platelets from light scattering. Journal of Biomedical Optics, 2013, 18, 017001. | 2.6 | 45 |
| 16 | Convergence of the discrete dipole approximation II An extrapolation technique to increase the accuracy. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2006, 23, 2592. | 1.5 | 44 |
| 17 | Light scattering by a cube: Accuracy limits of the discrete dipole approximation and the T-matrix method. Journal of Quantitative Spectroscopy and Radiative Transfer, 2013, 123, 176-183. | 2.3 | 42 |
| 18 | Determination of volume, shape and refractive index of individual blood platelets. Journal of Quantitative Spectroscopy and Radiative Transfer, 2006, 102, 37-45. | 2.3 | 39 |

| # | Article | IF | Citations |
|---|---|---|---|
| 19 | Rectangular dipoles in the discrete dipole approximation. Journal of Quantitative Spectroscopy and Radiative Transfer, 2015, 156, 67-79. | 2.3 | 38 |
| 20 | Rigorous and Fast Discrete Dipole Approximation for Particles near a Plane Interface. Journal of Physical Chemistry C, 2015, 119, 29088-29094. | 3.1 | 37 |
| 21 | Volume integral equation for electromagnetic scattering: Rigorous derivation and analysis for a set of multilayered particles with piecewise-smooth boundaries in a passive host medium. Physical Review A, 2018, 97, . | 2.5 | 31 |
| 22 | Light scattering by neutrophils: model, simulation, and experiment. Journal of Biomedical Optics, 2008, 13, 054057. | 2.6 | 30 |
| 23 | Highâ€precision characterization of individual E. coli cell morphology by scanning flow cytometry. Cytometry Part A: the Journal of the International Society for Analytical Cytology, 2013, 83A, 568-575. | 1.5 | 30 |
| 24 | Absorption and scattering properties of arbitrarily shaped particles in the Rayleigh domain. Journal of Quantitative Spectroscopy and Radiative Transfer, 2006, 97, 161-180. | 2.3 | 29 |
| 25 | Superâ€resolved calibrationâ€free flow cytometric characterization of platelets and cellâ€derived microparticles in plateletâ€rich plasma. Cytometry Part A: the Journal of the International Society for Analytical Cytology, 2016, 89, 159-168. | 1.5 | 28 |
| 26 | Mature red blood cells: from optical model to inverse light-scattering problem. Biomedical Optics Express, 2016, 7, 1305. | 2.9 | 24 |
| 27 | Comparison of the discrete dipole approximation and the discrete source method for simulation of light scattering by red blood cells. Optics Express, 2010, 18, 5681. | 3.4 | 23 |
| 28 | Advanced consumableâ€free morphological analysis of intact red blood cells by a compact scanning flow cytometer. Cytometry Part A: the Journal of the International Society for Analytical Cytology, 2017, 91, 867-873. | 1.5 | 23 |
| 29 | Energy budget and optical theorem for scattering of source-induced fields. Physical Review A, 2019, 99, . | 2.5 | 22 |
| 30 | Singleâ€Particle Characterization by Elastic Light Scattering. Laser and Photonics Reviews, 2021, 15, 2000368. | 8.7 | 21 |
| 31 | Enhanced characterisation of milk fat globules by their size, shape and refractive index with scanning flow cytometry. International Dairy Journal, 2014, 39, 316-323. | 3.0 | 19 |
| 32 | Performance of the discrete dipole approximation for optical properties of black carbon aggregates. Journal of Quantitative Spectroscopy and Radiative Transfer, 2018, 221, 98-109. | 2.3 | 19 |
| 33 | Discrimination of granulocyte subtypes from light scattering: theoretical analysis using a granulated sphere model. Optics Express, 2007, 15, 16561. | 3.4 | 18 |
| 34 | Impressed sources and fields in the volume-integral-equation formulation of electromagnetic scattering by a finite object: A tutorial. Journal of Quantitative Spectroscopy and Radiative Transfer, 2018, 214, 158-167. | 2.3 | 18 |
| 35 | Fluorescenceâ€free flow cytometry for measurement of shape index distribution of resting, partially activated, and fully activated platelets. Cytometry Part A: the Journal of the International Society for Analytical Cytology, 2016, 89, 1010-1016. | 1.5 | 17 |
| 36 | A case study on the reciprocity in light scattering computations. Optics Express, 2012, 20, 23253. | 3.4 | 16 |

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|---|---|---|---|
| 37 | Far-field Lorenzâ€“Mie scattering in an absorbing host medium. II: Improved stability of the numerical algorithm. Journal of Quantitative Spectroscopy and Radiative Transfer, 2018, 217, 274-277. | 2.3 | 16 |
| 38 | Comparison of the pseudo-spectral time domain method and the discrete dipole approximation for light scattering by ice spheres. Journal of Quantitative Spectroscopy and Radiative Transfer, 2014, 146, 402-409. | 2.3 | 14 |
| 39 | Additivity of light-scattering patterns of aggregated biological particles. Journal of Biomedical Optics, 2014, 19, 085004. | 2.6 | 13 |
| 40 | Time-domain discrete-dipole approximation for simulation of temporal response of plasmonic nanoparticles. Optics Express, 2015, 23, 15555. | 3.4 | 13 |
| 41 | Method for the simulation of blood platelet shape and its evolution during activation. PLoS Computational Biology, 2018, 14, e1005899. | 3.2 | 13 |
| 42 | Can light absorption of black carbon still be enhanced by mixing with absorbing materials?. Atmospheric Environment, 2021, 253, 118358. | 4.1 | 13 |
| 43 | Influence of magnesium sulfate on HCO 3 /Cl transmembrane exchange rate in human erythrocytes. Journal of Theoretical Biology, 2016, 393, 194-202. | 1.7 | 12 |
| 44 | Chylomicrons against light scattering: The battle for characterization. Journal of Biophotonics, 2018, 11, e201700381. | 2.3 | 12 |
| 45 | Sensitive detection and estimation of particle non-sphericity from the complex Fourier spectrum of its light-scattering profile. Journal of Quantitative Spectroscopy and Radiative Transfer, 2019, 235, 317-331. | 2.3 | 12 |
| 46 | Kinetics of the initial stage of immunoagglutionation studied with the scanning flow cytometer. Colloids and Surfaces B: Biointerfaces, 2003, 32, 245-255. | 5.0 | 11 |
| 47 | Spectral solution of the inverse Mie problem. Journal of Quantitative Spectroscopy and Radiative Transfer, 2017, 200, 280-294. | 2.3 | 11 |
| 48 | Reproducing the morphology-dependent resonances of spheres with the discrete dipole approximation. Optics Express, 2019, 27, 22827. | 3.4 | 11 |
| 49 | Additivity of integral optical cross sections for a fixed tenuous multi-particle group. Optics Letters, 2019, 44, 419. | 3.3 | 11 |
| 50 | OPTICS OF ERYTHROCYTES. , 2007, , 243-259. | | 10 |
| 51 | Brownian aggregation rate of colloid particles with several active sites. Journal of Chemical Physics, 2014, 141, 064309. | 3.0 | 10 |
| 52 | Light-scattering gating and characterization of plasma microparticles. Journal of Biomedical Optics, 2016, 21, 115003. | 2.6 | 10 |
| 53 | How much is enough? The convergence of finite sample scattering properties to those of infinite media. Journal of Quantitative Spectroscopy and Radiative Transfer, 2021, 262, 107524. | 2.3 | 10 |
| 54 | An optimization method for solving the inverse Mie problem based on adaptive algorithm for construction of interpolating database. Journal of Quantitative Spectroscopy and Radiative Transfer, 2013, 131, 202-214. | 2.3 | 9 |

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| 55 | Dynamic quantification of antigen molecules with flow cytometry. Journal of Immunological Methods, 2015, 418, 66-74. | 1.4 | 9 |
| 56 | Corrigendum to â€œThe discrete dipole approximation: An overview and recent developmentsâ€•[J. Quant. Spectrosc. Radiat. Transfer 106 (2007) 558â€“589]. Journal of Quantitative Spectroscopy and Radiative Transfer, 2016, 171, 82-83. | 2.3 | 8 |
| 57 | How a phase image of a cell with nucleus refractive index smaller than that of the cytoplasm should look like?. Journal of Biophotonics, 2018, 11, e201800033. | 2.3 | 8 |
| 58 | Rigorous analysis of the spectral sizing of single particles based on light scattering patterns. Optics and Laser Technology, 2022, 151, 108047. | 4.6 | 7 |
| 59 | An optimization method with precomputed starting points for solving the inverse Mie problem. Inverse Problems, 2012, 28, 045012. | 2.0 | 6 |
| 60 | Co- and counter-propagating wave effects in an absorbing medium. Journal of Quantitative Spectroscopy and Radiative Transfer, 2020, 242, 106688. | 2.3 | 6 |
| 61 | A point electric dipole: From basic optical properties to the fluctuationâ€“dissipation theorem. Reviews in Physics, 2021, 6, 100047. | 8.9 | 6 |
| 62 | OPTICS OF LEUCOCYTES. , 2007, , 269-280. | | 6 |
| 63 | Uniform-over-size approximation of the internal fields for scatterers with low refractive-index contrast. Journal of Quantitative Spectroscopy and Radiative Transfer, 2022, 277, 107965. | 2.3 | 6 |
| 64 | Symmetry relations for the Mueller scattering matrix integrated over the azimuthal angle. Journal of Quantitative Spectroscopy and Radiative Transfer, 2013, 131, 82-87. | 2.3 | 5 |
| 65 | Performance of iterative solvers in the discrete dipole approximation. , 2016, , . | | 4 |
| 66 | Scattering of a damped inhomogeneous plane wave by a particle in a weakly absorbing medium. OSA Continuum, 2019, 2, 2362. | 1.8 | 4 |
| 67 | Size-dependent optical properties of polyethylene powders in far-IR region: On the way to universal matrix. Journal of Quantitative Spectroscopy and Radiative Transfer, 2014, 147, 1-7. | 2.3 | 3 |
| 68 | Kinetic turbidimetry of patchy colloids aggregation: Latex particles immunoagglutination. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2017, 516, 72-79. | 4.7 | 3 |
| 69 | Capabilities of the discrete dipole approximation for large particle systems. , 2016, , . | | 2 |
| 70 | Calibrationâ€free quantitative immunoassay by flow cytometry: Theoretical consideration and practical implementation for IgG antibody binding to CD14 receptors on human leukocytes. Cytometry Part A: the Journal of the International Society for Analytical Cytology, 2018, 93, 695-705. | 1.5 | 2 |
| 71 | Addendum to â€œImpressed sources and fields in the volume-integral-equation formulation of electromagnetic scattering by a finite object: A tutorialâ€•[J. Quant. Spectrosc. Radiat. Transfer 214 (2018) 158â€“167]. Journal of Quantitative Spectroscopy and Radiative Transfer, 2018, 219, 105-107. | 2.3 | 2 |
| 72 | Broadband multimodal THz waveguides for efficient transfer of high-power radiation in space-confined conditions. Optics and Laser Technology, 2021, 143, 107375. | 4.6 | 2 |

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|---|---|---|---|
| 73 | Implementation of various Bessel beams in the framework of the discrete dipole approximation. AIP Conference Proceedings, 2020, , . | 0.4 | 2 |
| 74 | Challenges in simulation of optical properties of metallic nanoparticles using the discrete dipole approximation. , 2012, , . | | 1 |
| 75 | Comment on â€œRapid and Efficient Prediction of Optical Extinction Coefficients for Gold Nanospheres and Gold Nanorodsâ€• Journal of Physical Chemistry C, 2014, 118, 21738-21739. | 3.1 | 1 |
| 76 | Nuclear apoptotic volume decrease in individual cells: Confocal microscopy imaging and kinetic modeling. Journal of Theoretical Biology, 2018, 454, 60-69. | 1.7 | 1 |
| 77 | Capabilities of ADDA code for nanophotonics. Journal of Physics: Conference Series, 2020, 1461, 012197. | 0.4 | 1 |
| 78 | Electron energy loss spectroscopy in the framework of the discrete dipole approximation. AIP Conference Proceedings, 2020, , . | 0.4 | 1 |
| 79 | Electron-energy-loss spectroscopy and cathodoluminescence for particles inside substrate. Journal of Physics: Conference Series, 2021, 2015, 012064. | 0.4 | 1 |
| 80 | Kinetic study of the initial stages of agglutination process with scanning flow cytometer. , 2003, , . | | 0 |
| 81 | Comment on â€œPlasmonic nanoparticle monomers and dimers: from nanoantennas to chiral metamaterialsâ€• by Chigrin et al. in Appl Phys B (2011) 105:81â€“97. Applied Physics B: Lasers and Optics, 2014, 114, 601-602. | 2.2 | 0 |
| 82 | Erratum to Dynamic quantification of antigen molecules with flow cytometry [Journal of Immunological Methods, Volume 418, March 2015, Pages 66â€“74]. Journal of Immunological Methods, 2015, 427, 138. | 1.4 | 0 |
| 83 | A physical model of blood platelets shape and its effect on light scattering. , 2016, , . | | 0 |
| 84 | Light scattering into two fixed angles vs. angle-resolved measurements for characterization of single submicron particles. , 2016, , . | | 0 |
| 85 | ISLH 2017 Abstract Proceedings. International Journal of Laboratory Hematology, 2017, 39, 3-133. | 1.3 | 0 |
| 86 | Simulating optical properties of extremely oblate inhomogeneous particles with the discrete dipole approximation. Journal of Physics: Conference Series, 2020, 1461, 012198. | 0.4 | 0 |
| 87 | Polarizability and fluctuation-dissipation theorem for a point dipole: Does shape matter?. AIP Conference Proceedings, 2020, , . | 0.4 | 0 |
| 88 | Capabilities of the ADDA Code for Electromagnetic Simulations. , 2021, , . | | 0 |
| 89 | Behavior of the Lorenz-Mie poles in the complex space of sphere parameters. AIP Conference Proceedings, 2020, , . | 0.4 | 0 |