# Mikhail Vasnetsov

## List of Publications by Citations



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|---|---|---|---|
| 69 papers | 3,655 citations | 22 h-index | 60 g-index |
| 74 ext. papers | 4,397 ext. citations | 2.1 avg, IF | 4.68 L-index |

| # | Paper | IF | Citations |
|---|---|---|---|
| 69 | Free-space information transfer using light beams carrying orbital angular momentum. *Optics Express*, **2004**, 12, 5448-56 | 3.3 | 1631 |
| 68 | Topological charge and angular momentum of light beams carrying optical vortices. *Physical Review A*, **1997**, 56, 4064-4075 | 2.6 | 372 |
| 67 | Screw Dislocations in Light Wavefronts. *Journal of Modern Optics*, **1992**, 39, 985-990 | 1.1 | 278 |
| 66 | Optical wavefront dislocations and their properties. *Optics Communications*, **1995**, 119, 604-612 | 2 | 225 |
| 65 | Analysis of orbital angular momentum of a misaligned optical beam. *New Journal of Physics*, **2005**, 7, 46-46 | 2.9 | 97 |
| 64 | Synthesis and analysis of optical vortices with fractional topological charges. *Journal of Optics*, **2004**, 6, S166-S169 | | 85 |
| 63 | Transformation of higher-order optical vortices upon focusing by an astigmatic lens. *Optics Communications*, **2004**, 241, 237-247 | 2 | 81 |
| 62 | Optical vortex symmetry breakdown and decomposition of the orbital angular momentum of light beams. *Journal of the Optical Society of America A: Optics and Image Science, and Vision*, **2003**, 20, 1635-43 | 1.8 | 74 |
| 61 | Observation of the orbital angular momentum spectrum of a light beam. *Optics Letters*, **2003**, 28, 2285-7 | 3 | 63 |
| 60 | Self-reconstruction of an optical vortex. *JETP Letters*, **2000**, 71, 130-133 | 1.2 | 59 |
| 59 | Manifestation of the rotational Doppler effect by use of an off-axis optical vortex beam. *Optics Letters*, **2003**, 28, 1185-7 | 3 | 48 |
| 58 | Angular momentum of a rotating light beam. *Optics Communications*, **2005**, 249, 367-378 | 2 | 42 |
| 57 | Angular momentum of optical vortex arrays. *Optics Express*, **2006**, 14, 938-49 | 3.3 | 35 |
| 56 | Birth and evolution of wave-front dislocations in a laser beam passed through a photorefractive LiNbO3: Fe crystal. *Applied Physics B: Lasers and Optics*, **1996**, 62, 465-471 | 1.9 | 35 |
| 55 | Transformation of the orbital angular momentum of a beam with optical vortex in an astigmatic optical system. *JETP Letters*, **2002**, 75, 127-130 | 1.2 | 32 |
| 54 | Nonlinear singular optics. *Journal of Optics*, **1998**, 7, 301-311 | | 30 |
| 53 | Wavefront motion in the vicinity of a phase dislocation: optical vortex *Optics and Spectroscopy (English Translation of Optika I Spektroskopiya)*, **2000**, 88, 260-265 | 0.7 | 30 |

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|---|---|---|---|
| 52 | Structure of an edge-dislocation wave originating in plane-wave diffraction by a half-plane. *Journal of the Optical Society of America A: Optics and Image Science, and Vision*, **2000**, 17, 2199-207 | 1.8 | 28 |
| 51 | Optical vortex generation with a fork hologram under conditions of high-angle diffraction. *Optics Communications*, **2010**, 283, 2006-2016 | 2 | 27 |
| 50 | An optical vortex as a rotating body: mechanical features of a singular light beam. *Journal of Optics*, **2004**, 6, S170-S174 | | 27 |
| 49 | Observation of the rotational doppler effect for optical beams with helical wave front using spiral zone plate. *JETP Letters*, **2002**, 76, 486-489 | 1.2 | 24 |
| 48 | Nonlinear combinations of gratings in Bi_12SiO_20: theory and experiments. *Journal of the Optical Society of America B: Optical Physics*, **1995**, 12, 1422 | 1.7 | 23 |
| 47 | Self-Excitation of Space Charge Waves. *Physical Review Letters*, **1997**, 79, 67-70 | 7.4 | 21 |
| 46 | Birth, Evolution and Annihilation of Phase Singularities in the Propagation of a Laser Beam Passed Through a Self-Focusing Strontium Barium Niobate Crystal. *Journal of Nonlinear Optical Physics and Materials*, **1997**, 06, 169-180 | 0.8 | 18 |
| 45 | Increasing the data density of free-space optical communications using orbital angular momentum **2004**, 5550, 367 | | 18 |
| 44 | Light manipulation of nanoparticles in arrays of topological defects. *Scientific Reports*, **2016**, 6, 20742 | 4.9 | 17 |
| 43 | Dynamic spatial structure of spontaneous beams in photorefractive bismuth silicon oxide. *Journal of the Optical Society of America B: Optical Physics*, **1996**, 13, 2595 | 1.7 | 15 |
| 42 | Centrifugal transformation of the transverse structure of freely propagating paraxial light beams. *Optics Letters*, **2006**, 31, 694-6 | 3 | 14 |
| 41 | Mode separator for a beam with an off-axis optical vortex. *Quantum Electronics*, **2001**, 31, 464-466 | 1.8 | 14 |
| 40 | Observation of superluminal wave-front propagation at the shadow area behind an opaque disk. *Optics Letters*, **2007**, 32, 1830-2 | 3 | 13 |
| 39 | Description of the morphology of optical vortices using the orbital angular momentum and its components. *Optics and Spectroscopy (English Translation of Optika I Spektroskopiya)*, **2006**, 100, 910-915 | 0.7 | 12 |
| 38 | Relations between spontaneously occurring beams in bismuth silicon oxide with two frequency-detuned pump beams. *Optics Letters*, **1995**, 20, 2363 | 3 | 12 |
| 37 | Lasing by Second-Order Bragg Diffraction in Dye-Doped POLIPHEM Gratings. *Molecular Crystals and Liquid Crystals*, **2010**, 516, 159-166 | 0.5 | 11 |
| 36 | Dynamics of laser-induced bubble and free-surface oscillations in an absorbing liquid. *Applied Physics B, Photophysics and Laser Chemistry*, **1989**, 49, 485-489 | | 11 |
| 35 | A Monstar portrait in the interior. *Journal of Optics (United Kingdom)*, **2016**, 18, 034003 | 1.7 | 10 |

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| 34 | Phase modulation spectroscopy of space-charge wave resonances in Bi12SiO20. *Optics Communications*, **1997**, 137, 181-191 | 2 | 10 |
| 33 | Nonlinear grating interaction in photorefractive Bi12SiO20. *Applied Physics Letters*, **1995**, 66, 792-794 | 3.4 | 10 |
| 32 | Topological configurations of cross-coupled polarization singularities in a space-variant vector field. *Optics Communications*, **2016**, 363, 181-187 | 2 | 9 |
| 31 | Observation of polarization conflict caused by geometrical phase in a twisted nematic liquid crystal cell. *Optics Letters*, **2011**, 36, 2134-6 | 3 | 9 |
| 30 | Coupled-wave analysis of second-order Bragg diffraction I Reflection-type phase gratings. *Journal of the Optical Society of America B: Optical Physics*, **2009**, 26, 684 | 1.7 | 8 |
| 29 | Grazing Diffraction by Volume Phase Gratings. *Optica Acta*, **1985**, 32, 891-899 | | 7 |
| 28 | Photonic bandgap examination in an immersed synthetic opal. *Applied Physics B: Lasers and Optics*, **2014**, 116, 541-548 | 1.9 | 6 |
| 27 | Vortex Flow of Light: Spin and Orbital Flows in a Circularly Polarized Paraxial Beam13-24 | | 6 |
| 26 | Luminescence response of synthetic opal under femtosecond laser pumping. *Journal of Luminescence*, **2015**, 166, 233-237 | 3.8 | 5 |
| 25 | Formation of liquid-crystal cholesteric pitch in the centimeter range. *Physical Review E*, **2014**, 89, 022503 | 2.4 | 5 |
| 24 | Coupled-wave analysis of second-order Bragg diffraction II Threshold conditions for distributed-feedback laser oscillations. *Journal of the Optical Society of America B: Optical Physics*, **2009**, 26, 1975 | 1.7 | 5 |
| 23 | First Approach to the Analysis of the Lasing Conditions in POLIPHEM Structures. *Molecular Crystals and Liquid Crystals*, **2008**, 488, 135-147 | 0.5 | 5 |
| 22 | Laser-Induced Nonlinear Gaussian Lens in Liquid Crystal Cell Gives Birth to Optical Vortices. *Molecular Crystals and Liquid Crystals*, **1998**, 324, 25-30 | | 5 |
| 21 | Disclination Line in Cell as an Indicator of Liquid Crystal Chirality. *Molecular Crystals and Liquid Crystals*, **2013**, 575, 57-63 | 0.5 | 4 |
| 20 | Phase Defects in a Phase-conjugate Photorefractive-gain Oscillator. *Journal of Modern Optics*, **1994**, 41, 807-816 | 1.1 | 4 |
| 19 | Phase-matched light-induced scattering, mirrorless self-oscillation, and generation of nearly retropropagating waves in LiNbO3:Fe in forbidden interaction geometry. *Applied Physics B, Photophysics and Laser Chemistry*, **1992**, 55, 509-512 | | 4 |
| 18 | Oscillations conditions in a gain grating in the Bragg diffraction regime. *Optics Communications*, **2009**, 282, 2028-2031 | 2 | 3 |
| 17 | Mutually pumped coherent oscillator in photorefractive crystals with a local nonlinear response. *Journal of the Optical Society of America B: Optical Physics*, **1993**, 10, 1408 | 1.7 | 3 |

# List of Publications

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|---|---|---|---|
| 16 | Laser beams with screw dislocations in their wavefronts | | 3 |
| 15 | Structure of the axial intensity minima in the Fresnel diffraction on a circular opening and superluminous effects. *Optics Communications*, **2007**, 271, 316-322 | 2 | 2 |
| 14 | Observation of room-temperature afterglow in Polyamide-6 under UV excitation. *Semiconductor Physics, Quantum Electronics and Optoelectronics*, **2019**, 22, 333-337 | 0.4 | 2 |
| 13 | Photonic Bandgap Deformation in a Nonideal Synthetic Opal Photonic Crystal. *Journal of Experimental and Theoretical Physics*, **2018**, 126, 579-591 | 1 | 2 |
| 12 | Electrical control of nanoparticles arrays created via topological defect lines design in anisotropic fluids. *Journal of Molecular Liquids*, **2018**, 267, 297-302 | 6 | 1 |
| 11 | Generation of optical vortices by the periodic motion of a monochromatic source and its radiation spectrum. *Journal of Optics*, **2009**, 11, 094007 | | 1 |
| 10 | Spatial dependence of the frequency spectrum of a rotating optical beam. *JETP Letters*, **2005**, 81, 567-570 | 1.2 | 1 |
| 9 | Temporal Characteristics of Afterglow in Artificial Opal. *Ukrainian Journal of Physics*, **2016**, 61, 795-799 | 0.4 | 1 |
| 8 | Luminescence peculiarities of polyamide-6 α and γ forms. *Applied Physics B: Lasers and Optics*, **2021**, 127, 1 | 1.9 | 1 |
| 7 | Linear and nonlinear optics of synthetic opal **2016**, | | 1 |
| 6 | Optical vortex generated with an asymmetric forked grating. *Journal of Optics (United Kingdom)*, **2020**, 22, 104001 | 1.7 | 0 |
| 5 | Recollections of Professor Yuriy Reznikov. *Journal of Molecular Liquids*, **2018**, 267, 11-28 | 6 | 0 |
| 4 | Light pulse propagation in a double prism layout close to the angle of total internal reflection. *Journal of Optics (United Kingdom)*, **2020**, 22, 075602 | 1.7 | |
| 3 | Phase-resolved structure of a disclination in a liquid-crystal Ecell. *Optics Communications*, **2014**, 329, 129-134 | 2 | |
| 2 | Influence of the periodic motion of a monochromatic light source on the spectrum of its radiation. *Optics and Spectroscopy (English Translation of Optika I Spektroskopiya)*, **2009**, 106, 108-113 | 0.7 | |
| 1 | Optical instability in noncollinear second-harmonic generation. *Optics Letters*, **1991**, 16, 542-4 | 3 | |