# Xin-Hua Hu

List of Publications by Year
in descending order



| | | | |
|---|---|---|---|
| 106 papers | 3,048 citations | 236925 25 h-index | 168389 53 g-index |
| 109 all docs | 109 docs citations | 109 times ranked | 3596 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Deep Learning of Morphologic Correlations To Accurately Classify CD4+ and CD8+ T Cells by Diffraction Imaging Flow Cytometry. Analytical Chemistry, 2022, , . | 6.5 | 4 |
| 2 | Analysis of polarized diffraction images of human red blood cells: a numerical study. Biomedical Optics Express, 2022, 13, 1161. | 2.9 | 2 |
| 3 | A Machine Learning Based Framework for Verification and Validation of Massive Scale Image Data. IEEE Transactions on Big Data, 2021, 7, 451-467. | 6.1 | 20 |
| 4 | Multiparameter Spectrophotometry Platform for Turbid Sample Measurement by Robust Solutions of Radiative Transfer Problems. IEEE Transactions on Instrumentation and Measurement, 2021, 70, 1-10. | 4.7 | 5 |
| 5 | Robustness of inverse solutions for radiative transfer parameters from light signals measured with different detection configurations. Journal of Quantitative Spectroscopy and Radiative Transfer, 2021, 274, 107883. | 2.3 | 1 |
| 6 | Deep learning of diffraction image patterns for accurate classification of five cell types. Journal of Biophotonics, 2020, 13, e201900242. | 2.3 | 5 |
| 7 | Machine learning of diffraction image patterns for accurate classification of cells modeled with different nuclear sizes. Journal of Biophotonics, 2020, 13, e202000036. | 2.3 | 7 |
| 8 | Spectral determination of Î¼a, Î¼s and g from single and multiple scattering signals with one optically thick sample. Journal of Quantitative Spectroscopy and Radiative Transfer, 2020, 245, 106868. | 2.3 | 4 |
| 9 | Testing Scientific Software with Invariant Relations: A Case Study. , 2019, , . | | 1 |
| 10 | Rapid classification of micron-sized particles of sphere, cylinders and ellipsoids by diffraction image parameters combined with scattered light intensity. Journal of Quantitative Spectroscopy and Radiative Transfer, 2019, 224, 453-459. | 2.3 | 8 |
| 11 | Development and evaluation of realistic optical cell models for rapid and labelâ€free cell assay by diffraction imaging. Journal of Biophotonics, 2019, 12, e201800287. | 2.3 | 8 |
| 12 | Spectral determination of Î¼a, Î¼s and g of one thick turbid sample from three scattered light signals. , 2019, , . | | 0 |
| 13 | CNN based classification of 5 cell types by diffraction images. , 2019, , . | | 0 |
| 14 | Quantitative characterization of turbidity by radiative transfer based reflectance imaging. Biomedical Optics Express, 2018, 9, 2081. | 2.9 | 9 |
| 15 | Profiling pleural effusion cells by a diffraction imaging method. , 2018, , . | | 0 |
| 16 | Stochastic model for quantifying effect of surface roughness on light reflection by diffuse reflectance standards. Optical Engineering, 2018, 57, 1. | 1.0 | 1 |
| 17 | Building an SVM Classifier for Automated Selection of Big Data. , 2017, , . | | 4 |
| 18 | Building a Deep Learning Classifier for Enhancing a Biomedical Big Data Service. , 2017, , . | | 5 |

| # | Article | IF | Citations |
|---|---|---|---|
| 19 | Application of metamorphic testing monitored by test adequacy in a Monte Carlo simulation program. Software Quality Journal, 2017, 25, 841-869. | 2.2 | 7 |
| 20 | Validating a Deep Learning Framework by Metamorphic Testing. , 2017, , . | | 39 |
| 21 | Pattern recognition and classification of two cancer cell lines by diffraction imaging at multiple pixel distances. Pattern Recognition, 2017, 61, 234-244. | 8.1 | 31 |
| 22 | Resolving power of diffraction imaging with an objective: a numerical study. Optics Express, 2017, 25, 9628. | 3.4 | 5 |
| 23 | Quantitative analysis and comparison of 3D morphology between viable and apoptotic MCF-7 breast cancer cells and characterization of nuclear fragmentation. PLoS ONE, 2017, 12, e0184726. | 2.5 | 16 |
| 24 | An application of metamorphic testing for testing scientific software. , 2016, , . | | 19 |
| 25 | A Framework for Ensuring the Quality of a Big Data Service. , 2016, , . | | 12 |
| 26 | Spectrophotometric determination of turbid optical parameters without using an integrating sphere. Applied Optics, 2016, 55, 2079. | 2.1 | 10 |
| 27 | Quantitative assessment of image motion blur in diffraction images of moving biological cells. Optical Engineering, 2016, 55, 023103. | 1.0 | 1 |
| 28 | Realistic optical cell modeling and diffraction imaging simulation for study of optical and morphological parameters of nucleus. Optics Express, 2016, 24, 366. | 3.4 | 11 |
| 29 | Research on Optimization of GLCM Parameter in Cell Classification. , 2016, , . | | 0 |
| 30 | A new assessment model for tumor heterogeneity analysis with [18]F-FDG PET images. EXCLI Journal, 2016, 15, 75-84. | 0.7 | 1 |
| 31 | Comparison study of distinguishing cancerous and normal prostate epithelial cells by confocal and polarization diffraction imaging. Journal of Biomedical Optics, 2015, 21, 071102. | 2.6 | 17 |
| 32 | Acquisition of cross-polarized diffraction images and study of blurring effect by one time-delay-integration camera. Applied Optics, 2015, 54, 5223. | 2.1 | 10 |
| 33 | A quantitative method for measurement of HL-60 cell apoptosis based on diffraction imaging flow cytometry technique. Biomedical Optics Express, 2014, 5, 2172. | 2.9 | 17 |
| 34 | Analysis of diffraction imaging in non-conjugate configurations. Optics Express, 2014, 22, 31568. | 3.4 | 18 |
| 35 | Polarization imaging and classification of <scp>J</scp>urkat T and <scp>R</scp>amos B cells using a flow cytometer. Cytometry Part A: the Journal of the International Society for Analytical Cytology, 2014, 85, 817-826. | 1.5 | 30 |
| 36 | Polarization imaging and classification of Jurkat T and Ramos B cells using a flow cytometer. , 2014, 85, 986-986. | | 1 |

| # | Article | IF | Citations |
|---|---|---|---|
| 37 | Feasibility Study of Dual Energy Radiographic Imaging for Target Localization in Radiotherapy for Lung Tumors. PLoS ONE, 2014, 9, e108823. | 2.5 | 3 |
| 38 | Fast method for inverse determination of optical parameters from two measured signals. Optics Letters, 2013, 38, 2095. | 3.3 | 12 |
| 39 | Analysis of cellular objects through diffraction images acquired by flow cytometry. Optics Express, 2013, 21, 24819. | 3.4 | 33 |
| 40 | Study of low speed flow cytometry for diffraction imaging with different chamber and nozzle designs. Cytometry Part A: the Journal of the International Society for Analytical Cytology, 2013, 83, 1027-1033. | 1.5 | 19 |
| 41 | Correlating the light scattering pattern of a biological cell to its mitochondrial properties using a Gabor filter technique. Proceedings of SPIE, 2012, , . | 0.8 | 1 |
| 42 | 3D cell feature measurement with a diffraction imaging method. , 2012, , . | | 0 |
| 43 | Extraction of microsphere size from diffraction images with an STFT method. , 2012, , . | | 2 |
| 44 | A novel method of diffraction imaging flow cytometry for sizing microspheres. Optics Express, 2012, 20, 22245. | 3.4 | 25 |
| 45 | A model of cellular decision making in photodynamic therapy of cancer. , 2012, , . | | 2 |
| 46 | Comparative study of 3D morphology and functions on genetically engineered mouse melanoma cells. Integrative Biology (United Kingdom), 2012, 4, 1428. | 1.3 | 31 |
| 47 | Modeling of Oxygen Transport and Cell Killing in Typeâ€Ⅱ Photodynamic Therapy. Photochemistry and Photobiology, 2012, 88, 969-977. | 2.5 | 9 |
| 48 | Modeling of PDT kinetics in cell killing. , 2011, , . | | 1 |
| 49 | Label-free classification of cultured cells through diffraction imaging. Biomedical Optics Express, 2011, 2, 1717. | 2.9 | 48 |
| 50 | Metamorphic testing of a Monte Carlo modeling program. , 2011, , . | | 13 |
| 51 | Rapid analysis of white blood cells with diffraction imaging flow cytometry. , 2011, , . | | 1 |
| 52 | Study of cell classification with a diffraction imaging flow cytometer method. Proceedings of SPIE, 2011, , . | 0.8 | 1 |
| 53 | Self-Checked Metamorphic Testing of an Image Processing Program. , 2010, , . | | 21 |
| 54 | Angle-resolved Light Scattering Study of NALM-6 and HL-60 Cells for White Blood Cell Differentiation. , 2010, , . | | 0 |

| # | Article | IF | Citations |
|---|---|---|---|
| 55 | Diffraction Imaging Flow Cytometric and 3D Morphological Analysis of Three Cell Lines. , 2010, , . | | 0 |
| 56 | A higher order diffusion model for three-dimensional photon migration and image reconstruction in optical tomography. Physics in Medicine and Biology, 2009, 54, 67-90. | 3.0 | 42 |
| 57 | Diffraction imaging of spheres and melanoma cells with a microscope objective. Journal of Biophotonics, 2009, 2, 521-527. | 2.3 | 39 |
| 58 | Development of a diffraction imaging flow cytometer. Optics Letters, 2009, 34, 2985. | 3.3 | 65 |
| 59 | Study of 3D cell morphology and effect on light scattering distribution. Proceedings of SPIE, 2009, , . | 0.8 | 2 |
| 60 | Study of 3D cell morphology and effect on light scattering distribution. , 2009, , . | | 3 |
| 61 | Validity of a closedâ€form diffusion solution in approximation for reflectance imaging with an oblique beam of arbitrary profile. Medical Physics, 2008, 35, 3979-3987. | 3.0 | 3 |
| 62 | Simulations of Light Scattering from B-cells with Inhomogeneous Nuclei Using a Improved FDTD Program. , 2008, , . | | 0 |
| 63 | Noninvasive Determination of Optical Parameters from One Reflectance Image and Extension to Depth-Resolving. , 2008, , . | | 0 |
| 64 | Numerical study of reflectance imaging using a parallel Monte Carlo method. Medical Physics, 2007, 34, 2939-2948. | 3.0 | 15 |
| 65 | Angle-resolved Mueller matrix study of light scattering by B-cells at three wavelengths of 442, 633, and 850â€‚nm. Journal of Biomedical Optics, 2007, 12, 034032. | 2.6 | 42 |
| 66 | MODELING OF LIGHT SCATTERING BY SINGLE RED BLOOD CELLS WITH THE FDTD METHOD. , 2007, , 213-242. | | 3 |
| 67 | Refractive indices of human skin tissues at eight wavelengths and estimated dispersion relations between 300 and 1600 nm. Physics in Medicine and Biology, 2006, 51, 1479-1489. | 3.0 | 228 |
| 68 | A primary method for determination of optical parameters of turbid samples and application to intralipid between 550 and 1630nm. Optics Express, 2006, 14, 7420. | 3.4 | 78 |
| 69 | Efficient delivery of small interfering RNA to plant cells by a nanosecond pulsed laser-induced stress wave for posttranscriptional gene silencing. Plant Science, 2006, 171, 375-381. | 3.6 | 31 |
| 70 | Effect of detailed cell structure on light scattering distribution: FDTD study of a B-cell with 3D structure constructed from confocal images. Journal of Quantitative Spectroscopy and Radiative Transfer, 2006, 102, 25-36. | 2.3 | 60 |
| 71 | Determination of Intracellular Distributions of Refractive Index of B-cells and HL60 cells at 442, 633 and 850nm. , 2006, , . | | 0 |
| 72 | Determination of Optical Parameters through Light Scattering Study: B-lymphocytes. , 2006, , . | | 0 |

| # | Article | IF | Citations |
|---|---|---|---|
| 73 | Modeling of the Internal Optical Structure of the Nuclei of B-cells. , 2006, , . | | 1 |
| 74 | 3D Reconstruction of B-lymphocytes with Confocal Images and Parallel FDTD Simulations of Light Scattering. , 2006, , . | | 0 |
| 75 | Bulk tissue optical parameters of porcine skin dermis at 8 wavelengths from 325 to 1550nm. , 2005, , . | | 0 |
| 76 | Multivariate analysis of Monte Carlo generated images for diagnosis of dysplastic lesions. , 2005, , . | | 2 |
| 77 | An ultrasonic device for source to skin surface distance measurement in patient setup. International Journal of Radiation Oncology Biology Physics, 2005, 61, 1587-1589. | 0.8 | 5 |
| 78 | Modeling of a Type II Photofrin-mediated Photodynamic Therapy Process in a Heterogeneous Tissue Phantom. Photochemistry and Photobiology, 2005, 81, 1460. | 2.5 | 52 |
| 79 | Simulations of light scattering from a biconcave red blood cell using the finite-difference time-domain method. Journal of Biomedical Optics, 2005, 10, 024022. | 2.6 | 97 |
| 80 | Quantitative modeling of tissue images using a parallel Monte Carlo method. , 2005, , . | | 3 |
| 81 | Determination of refractive indices of porcine skin tissues and Intralipid at eight wavelengths between 325 and 1557â€‰nm. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2005, 22, 1151. | 1.5 | 84 |
| 82 | Evaluation of a parallel FDTD code and application to modeling of light scattering by deformed red blood cells. Optics Express, 2005, 13, 5279. | 3.4 | 43 |
| 83 | Bulk optical parameters of porcine skin dermis at eight wavelengths from 325 to 1557 nm. Optics Letters, 2005, 30, 412. | 3.3 | 59 |
| 84 | Simulation of light scattering by a pressure deformed red blood cell with a parallel FDTD method. , 2005, , . | | 0 |
| 85 | Imaging Based Tissue Optics: Parallel Monte Carlo Modeling and Phantom Measurements. , 2005, , . | | 0 |
| 86 | Photosensitizers in clinical PDT. Photodiagnosis and Photodynamic Therapy, 2004, 1, 27-42. | 2.6 | 862 |
| 87 | Photodynamic therapy for chest wall recurrence from breast cancer. Photodiagnosis and Photodynamic Therapy, 2004, 1, 157-171. | 2.6 | 34 |
| 88 | Modeling of Skin Tissue Ablation by Nanosecond Pulses From Ultraviolet to Near-Infrared and Comparison With Experimental Results. IEEE Journal of Quantum Electronics, 2004, 40, 69-77. | 1.9 | 19 |
| 89 | Determination of complex refractive index of polystyrene microspheres from 370 to 1610 nm. Physics in Medicine and Biology, 2003, 48, 4165-4172. | 3.0 | 319 |
| 90 | Effect of surface roughness on determination of bulk tissue optical parameters. Optics Letters, 2003, 28, 2204. | 3.3 | 30 |

| # | Article | IF | Citations |
|---|---|---|---|
| 91 | In Vivo Study of Intradermal Focusing for Tattoo Removal. Lasers in Medical Science, 2002, 17, 154-164. | 2.1 | 12 |
| 92 | Optical properties of porcine skin dermis between 900 nm and 1500 nm. Physics in Medicine and Biology, 2001, 46, 167-181. | 3.0 | 111 |
| 93 | Mechanism study of porcine skin ablation by nanosecond laser pulses at 1064, 532, 266, and 213 nm. IEEE Journal of Quantum Electronics, 2001, 37, 322-328. | 1.9 | 17 |
| 94 | Tattoo removal in micropigs with low-energy pulses from a Q-switched Nd:YAG laser at 1064 nm. , 2001, 4244, 55. | | 0 |
| 95 | Quasi-elastic light scattering of laser-trapped biological particles. , 2000, , . | | 1 |
| 96 | Modeling of the rough-interface effect on a converging light beam propagating in a skin tissue phantom. Applied Optics, 2000, 39, 5890. | 2.1 | 46 |
| 97 | Surface ablation of porcine skin tissue using nanosecond laser pulses at 1064 nm. , 1997, , . | | 0 |
| 98 | <title>Far-ultraviolet absorption spectra of porcine and human corneas</title>. , 1997, 2971, 46. | | 1 |
| 99 | Study of corneal ablation with picosecond laser pulses at 211 nm and 263 nm. , 1996, 18, 373-380. | | 13 |
| 100 | Efficient use of Q-switched lasers in the treatment of cutaneous lesions. , 1995, 2395, 586. | | 4 |
| 101 | Dynamics of photoexcited carrier relaxation inC60films. Physical Review B, 1993, 48, 4929-4932. | 3.2 | 24 |
| 102 | Time-resolved thermoreflectivity of thin gold films and its dependence on the ambient temperature. Physical Review B, 1992, 45, 13819-13822. | 3.2 | 33 |
| 103 | The temperature dependence of the resistive response of superconducting Pb films upon picosecond optical excitation. Applied Physics A: Solids and Surfaces, 1991, 52, 155-159. | 1.4 | 4 |
| 104 | Transient electric field generated by nonequilibrium states in superconducting Pb films. Applied Physics Letters, 1991, 59, 3333-3335. | 3.3 | 8 |
| 105 | Quantitative understanding of skin tissue ablation from UV to NIR with a new plasma model. , 0, , . | | 0 |
| 106 | Accurate simulation of light scattering by a red blood cell using the FDTD method. , 0, , . | | 0 |