Bartek Rajwa

List of Publications by Year in descending order

113 papers	5,245 citations	172457 29 h-index	91884 69 g-index
116 all docs	116 docs citations	116 times ranked	10754 citing authors

#	Article	IF	Citations
1	Mitochondrial Complex I Inhibitor Rotenone Induces Apoptosis through Enhancing Mitochondrial Reactive Oxygen Species Production. Journal of Biological Chemistry, 2003, 278, 8516-8525.	3.4	1,112
2	Guidelines for the use of flow cytometry and cell sorting in immunological studies (second edition). European Journal of Immunology, 2019, 49, 1457-1973.	2.9	766
3	A community effort to assess and improve drug sensitivity prediction algorithms. Nature Biotechnology, 2014, 32, 1202-1212.	17.5	653
4	Guidelines for the use of flow cytometry and cell sorting in immunological studies[*]. European Journal of Immunology, 2017, 47, 1584-1797.	2.9	505
5	A community computational challenge to predict the activity of pairs of compounds. Nature Biotechnology, 2014, 32, 1213-1222.	17.5	264
6	Label-free detection of multiple bacterial pathogens using light-scattering sensor. Biosensors and Bioelectronics, 2009, 24, 1685-1692.	10.1	134
7	Optical forward-scattering for detection of Listeria monocytogenes and other Listeria species. Biosensors and Bioelectronics, 2007, 22, 1664-1671.	10.1	125
8	DPI induces mitochondrial superoxide-mediated apoptosis. Free Radical Biology and Medicine, 2003, 34, 465-477.	2.9	90
9	Stimulated Raman scattering flow cytometry for label-free single-particle analysis. Optica, 2017, 4, 103.	9.3	86
10	Hyperspectral cytometry at the singleâ€cell level using a 32â€channel photodetector. Cytometry Part A: the Journal of the International Society for Analytical Cytology, 2012, 81A, 35-44.	1.5	69
11	Automated classification of bacterial particles in flow by multiangle scatter measurement and support vector machine classifier. Cytometry Part A: the Journal of the International Society for Analytical Cytology, 2008, 73A, 369-379.	1.5	67
12	Feature extraction from light-scatter patterns of Listeria colonies for identification and classification. Journal of Biomedical Optics, 2006, 11, 034006.	2.6	61
13	Generalized unmixing model for multispectral flow cytometry utilizing nonsquare compensation matrices. Cytometry Part A: the Journal of the International Society for Analytical Cytology, 2013, 83A, 508-520.	1.5	58
14	Effects of sugars and sugar alcohols on the gelatinization temperature of wheat starch. Food Hydrocolloids, 2018, 84, 593-607.	10.7	52
15	Lightâ€scattering sensor for realâ€time identification of <scp>V</scp>ibrio parahaemolyticus, <scp>V</scp>ibrio vulnificus and <scp>V</scp>ibrio cholerae colonies on solid agar plate. Microbial Biotechnology, 2012, 5, 607-620.	4.2	48
16	Laser Optical Sensor, a Label-Free On-Plate Salmonella enterica Colony Detection Tool. MBio, 2014, 5, e01019-13.	4.1	48
17	A numerical recipe for accurate image reconstruction from discrete orthogonal moments. Pattern Recognition, 2007, 40, 659-669.	8.1	47
18	Automated quantification and reconstruction of collagen matrix from 3D confocal datasets. Journal of Microscopy, 2003, 210, 158-165.	1.8	46

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19	Light Scattering Sensor for Direct Identification of Colonies of Escherichia coli Serogroups O26, O45, O103, O111, O121, O145 and O157. PLoS ONE, 2014, 9, e105272.	2.5	46
20	Computational analysis of high-throughput flow cytometry data. Expert Opinion on Drug Discovery, 2012, 7, 679-693.	5.0	40
21	Differential Mitochondrial Toxicity Screening and Multi-Parametric Data Analysis. PLoS ONE, 2012, 7, e45226.	2.5	39
22	Actin cytoskeleton in Arabidopsis thaliana under blue and red light. Biology of the Cell, 2007, 99, 251-260.	2.0	37
23	Discovering the unknown: Detection of emerging pathogens using a labelâ€free lightâ€scattering system. Cytometry Part A: the Journal of the International Society for Analytical Cytology, 2010, 77A, 1103-1112.	1.5	37
24	Loss of image quality in photobleaching during microscopic imaging of fluorescent probes bound to chromatin. Journal of Biomedical Optics, 2005, 10, 064015.	2.6	35
25	Classification of Bacterial Contamination Using Image Processing and Distributed Computing. IEEE Journal of Biomedical and Health Informatics, 2013, 17, 232-239.	6.3	35
26	Comparative three-dimensional imaging of living neurons with confocal and atomic force microscopy. Journal of Neuroscience Methods, 2005, 142, 177-184.	2.5	34
27	Analysis of Orientations of Collagen Fibers by Novel Fiber-Tracking Software. Microscopy and Microanalysis, 2003, 9, 574-580.	0.4	33
28	A non-parametric Bayesian model for joint cell clustering and cluster matching: identification of anomalous sample phenotypes with random effects. BMC Bioinformatics, 2014, 15, 314.	2.6	30
29	Interaction of maize zein with wheat gluten in composite dough and bread as determined by confocal laser scanning microscopy. Scanning, 2002, 24, 1-5.	1.5	29
30	Quadratic form: A robust metric for quantitative comparison of flow cytometric histograms. Cytometry Part A: the Journal of the International Society for Analytical Cytology, 2008, 73A, 715-726.	1.5	28
31	An excitation wavelengthâ€“scanning spectral imaging system for preclinical imaging. Review of Scientific Instruments, 2008, 79, 023707.	1.3	27
32	Alternatives to current flow cytometry data analysis for clinical and research studies. Methods, 2018, 134-135, 113-129.	3.8	26
33	The design and construction of a cost-efficient confocal laser scanning microscope. American Journal of Physics, 2007, 75, 203-207.	0.7	24
34	Adaptive image-processing technique and effective visualization of confocal microscopy images. Microscopy Research and Technique, 2004, 64, 156-163.	2.2	23
35	Schistosoma mansoni Infection-Induced Transcriptional Changes in Hepatic Macrophage Metabolism Correlate With an Athero-Protective Phenotype. Frontiers in Immunology, 2018, 9, 2580.	4.8	23
36	Automated Assessment of Disease Progression in Acute Myeloid Leukemia by Probabilistic Analysis of Flow Cytometry Data. IEEE Transactions on Biomedical Engineering, 2017, 64, 1089-1098.	4.2	22

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37	AFM/CLSM data visualization and comparison using an open-source toolkit. Microscopy Research and Technique, 2004, 64, 176-184.	2.2	19
38	Compression of fluorescence microscopy images based on the signal-to-noise estimation. Microscopy Research and Technique, 2006, 69, 1-9.	2.2	19
39	flowVS: channel-specific variance stabilization in flow cytometry. BMC Bioinformatics, 2016, 17, 291.	2.6	19
40	Precision of light intensity measurement in biological optical microscopy. Journal of Microscopy, 2007, 226, 163-174.	1.8	16
41	High speed classification of individual bacterial cells using a model-based light scatter system and multivariate statistics. Applied Optics, 2008, 47, 678.	2.1	16
42	Point-of-care test for cervical cancer in LMICs. Oncotarget, 2016, 7, 18787-18797.	1.8	16
43	High-Throughput Secondary Screening at the Single-Cell Level. Journal of the Association for Laboratory Automation, 2013, 18, 85-98.	2.8	15
44	Simplicity of Kmeans Versus Deepness of Deep Learning: A Case of Unsupervised Feature Learning with Limited Data. , 2015, , .		15
45	A Statistical Modeling Approach to Computer-Aided Quantification of Dental Biofilm. IEEE Journal of Biomedical and Health Informatics, 2015, 19, 358-366.	6.3	15
46	Portable bacterial identification system based on elastic light scatter patterns. Journal of Biological Engineering, 2012, 6, 12.	4.7	14
47	Development of a multispectral lightâ€scatter sensor for bacterial colonies. Journal of Biophotonics, 2017, 10, 634-644.	2.3	14
48	ILâ€4 promotes stromal cell expansion and is critical for development of a typeâ€2, but not a type 1 immune response. European Journal of Immunology, 2019, 49, 428-442.	2.9	14
49	The SH3 Domain of Lck Modulates T-Cell Receptor-Dependent Activation of Extracellular Signal-Regulated Kinase through Activation of Raf-1. Molecular and Cellular Biology, 2008, 28, 630-641.	2.3	13
50	Detection of E. coli labeled with metal-conjugated antibodies using lateral-flow assay and laser-induced breakdown spectroscopy. Analytical and Bioanalytical Chemistry, 2020, 412, 1291-1301.	3.7	13
51	Multispectral cytometry of single bio-particles using a 32-channel detector. , 2005, 5692, 359.		12
52	Hyperspectral Cytometry. Current Topics in Microbiology and Immunology, 2013, 377, 191-210.	1.1	12
53	Immunophenotype Discovery, Hierarchical Organization, and Template-Based Classification of Flow Cytometry Samples. Frontiers in Oncology, 2016, 6, 188.	2.8	12
54	Singleâ€and twoâ€photon spectral imaging of intrinsic fluorescence of transformed human hepatocytes. Microscopy Research and Technique, 2007, 70, 869-879.	2.2	11

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55	A machineâ€learning approach to detecting unknown bacterial serovars. Statistical Analysis and Data Mining, 2010, 3, 289-301.	2.8	11
56	SEMANTIC ANALYSIS OF BIOLOGICAL IMAGING DATA: CHALLENGES AND OPPORTUNITIES. International Journal of Semantic Computing, 2007, 01, 67-85.	0.5	10
57	State of the Art in Information Extraction and Quantitative Analysis for Multimodality Biomolecular Imaging. Proceedings of the IEEE, 2008, 96, 512-531.	21.3	10
58	Development of a microbial high-throughput screening instrument based on elastic light scatter patterns. Review of Scientific Instruments, 2012, 83, 044304.	1.3	9
59	Application of detector precision characteristics and histogram packing for compression of biological fluorescence micrographs. Computer Methods and Programs in Biomedicine, 2012, 108, 511-523.	4.7	9
60	Lipidomic Profiling of the Epidermis in a Mouse Model of Dermatitis Reveals Sexual Dimorphism and Changes in Lipid Composition before the Onset of Clinical Disease. Metabolites, 2020, 10, 299.	2.9	9
61	AOTF-based system for image cytometry. , 2005, 5694, 16.		8
62	An emerging method to noninvasively measure and identify vagal response markers to enable bioelectronic control of gastroparesis symptoms with gastric electrical stimulation. Journal of Neuroscience Methods, 2020, 336, 108631.	2.5	8
63	Phototoxicity, distribution and kinetics of association of UVA-activated chlorpromazine, 8-methoxypsoralen, and 4,6,4â€²-trimethylangelicin in Jurkat cells. Journal of Photochemistry and Photobiology B: Biology, 2005, 78, 155-164.	3.8	7
64	A novel experimental workflow to determine the impact of storage parameters on the mass spectrometric profiling and assessment of representative phosphatidylethanolamine lipids in mouse tissues. Analytical and Bioanalytical Chemistry, 2021, 413, 1837-1849.	3.7	7
65	Using Scattering to Identify Bacterial Pathogens. Optics and Photonics News, 2011, 22, 20.	0.5	6
66	Current status and future prospects of using advanced computer-based methods to study bacterial colonial morphology. Expert Review of Anti-Infective Therapy, 2016, 14, 207-218.	4.4	6
67	Maternal schistosomiasis impairs offspring Interleukin-4 production and B cell expansion. PLoS Pathogens, 2021, 17, e1009260.	4.7	6
68	Multispectral imaging analysis: spectral deconvolution and applications in biology. , 2005, , .		5
69	Modern Confocal Microscopy. Current Protocols in Cytometry, 2005, 31, Unit 12.3.	3.7	5
70	Learning with a non-exhaustive training dataset. , 2009, , .		5
71	Self-Adjusting Models for Semi-supervised Learning in Partially Observed Settings. , 2012, , .		5
72	Effect-Size Measures as Descriptors of Assay Quality in High-Content Screening: A Brief Review of Some Available Methodologies. Assay and Drug Development Technologies, 2017, 15, 15-29.	1.2	5

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73	Local and Systemic Changes in Lipid Profile as Potential Biomarkers for Canine Atopic Dermatitis. Metabolites, 2021, 11, 670.	2.9	5
74	A Chemogenomic Screening Platform Used to Identify Chemotypes Perturbing HSP90 Pathways. SLAS Discovery, 2017, 22, 706-719.	2.7	4
75	Determination of the Water Activities of Wines and Spirits. Food Analytical Methods, 2019, 12, 2753-2763.	2.6	4
76	Classifying Immunophenotypes With Templates From Flow Cytometry. , 2013, , .		3
77	A double blinded, placebo-controlled pilot study to examine reduction of CD34+/CD117+/CD133+ lymphoma progenitor cells and duration of remission induced by neoadjuvant valspodar in dogs with large B-cell lymphoma. F1000Research, 0, 4, 42.	1.6	3
78	Title is missing!. Applied Immunohistochemistry & Molecular Morphology, 2002, 10, 247-252.	2.0	2
79	Image reconstruction from discrete Chebyshev moments via formation of lookup tables. , 2006, , .		2
80	Noninvasive forward-scattering system for rapid detection, characterization, and identification of Listeria colonies: image-processing and data analysis. , 2006, , .		2
81	Application of wavelet denoising to improve compression efficiency while preserving integrity of digital micrographs. Journal of Microscopy, 2008, 231, 81-96.	1.8	2
82	Just compensation?. , 2011, 79A, 973-974.		2
83	Partially-observed models for classifying minerals on Mars. , 2013, , .		2
84	Batch discovery of recurring rare classes toward identifying anomalous samples. , 2014, , .		2
85	A Portable Spark-Induced Breakdown Spectroscopic (SIBS) Instrument and its Analytical Performance. Applied Spectroscopy, 2019, 73, 698-708.	2.2	2
86	Optical multi-channel interrogation instrument for bacterial colony characterization. PLoS ONE, 2021, 16, e0247721.	2.5	2
87	Feature extraction for cellular shape analysis in high-content screening (HCS) applications. , 2005, , .		1
88	<title>Interactive volume visualization of cellular structures</title>. , 2006, , .		1
89	Bacterial phenotype identification using Zernike moment invariants. , 2006, 6080, 155.		1
90	Automated classification and recognition of bacterial particles in flow by multi-angle scatter measurement and a support-vector machine classifier. , 2007, , .		1

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91	Quantification of morphology of bacterial colonies using laser scatter measurements and solid element optical modeling. , 2007, , .		1
92	Rapid Detection and Classification of Bacterial Contamination Using Grid Computing. , 2007, , .		1
93	Phenotypic analysis of bacterial colonies using laser light scatter and pattern-recognition techniques. , 2008, , .		1
94	Compression of multispectral fluorescence microscopic images based on a modified set partitioning in hierarchal trees. , 2009, , .		1
95	Theta Rotation and Serial Registration of Light Microscopical Images Using a Novel Camera Rotating Device. Microscopy and Microanalysis, 2010, 16, 239-247.	0.4	1
96	A distributed national network for label-free rapid identification of emerging pathogens. , 2011, , .		1
97	BiofilmQuant: A computer-assisted tool for dental biofilm quantification. , 2014, 2014, 4244-7.		1
98	Phenotyping Immune Cells in Tumor and Healthy Tissue Using Flow Cytometry Data. , 2018, , .		1
99	Development of a Smartphone-Integrated Reflective Scatterometer for Bacterial Identification. Sensors, 2022, 22, 2646.	3.8	1
100	Noise reduction and 3D visualization of confocal microscopy images. , 2004, , .		0
101	Quantification of image quality after photobleaching and image compression. , 2005, , .		0
102	Adaptative, signal-preserving compression of microscopic images using noise modeling in the wavelet domain and JPEG2000 coding. , 2006, , .		0
103	Modeling in vivo fluorescence of small animals using TracePro software. , 2007, , .		0
104	Application of quantitative morphological cytometry for evaluation of shear stress: potential for HCS systems. , 2007, , .		0
105	Noninvasive forward-scattering system for rapid detection, characterization, and identification of bacterial colonies. , 2007, , .		0
106	Image cytometry goes multiphoton. Cytometry Part A: the Journal of the International Society for Analytical Cytology, 2007, 71A, 973-975.	1.5	0
107	Morphotypic analysis and classification of bacteria and bacterial colonies using laser light-scattering, pattern recognition, and machine-learning system. , 2009, , .		0
108	Non-exhaustive Learning for Bacteria Detection. , 2009, , .		0

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109	Digital microbiology: detection and classification of unknown bacterial pathogens using a label-free laser light scatter-sensing system. , 2011, , .		0
110	Sa1558 - The Efficacy of Gastric Electrical Stimulation for Gastroparesis Differs by Disease Etiology: Vagal Nerve Response Signatures of Efficacy. Gastroenterology, 2018, 154, S-310.	1.3	0
111	A lowcomplexity speck-based codec for multispectral fluorescence microscopic images. , 2010, , .		0
112	Abstract 4741: Monocytic myeloid derived suppressor cells (M-MDSC) from spleen are multipotent while tumor M-MDSC have limited plasticity. , 2018, , .		0
113	SPARC: Chronic Simultaneous Recording of Gastric Motility and Ad Libitum Feeding Behavior in Awake, Freely Moving Rats with Vagal Nerve Simulation. FASEB Journal, 2020, 34, 1-1.	0.5	0