

# Rafael A Irizarry

## List of Publications by Citations

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**Version:** 2024-04-23

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

64  
papers

20,400  
citations

34  
h-index

78  
g-index

78  
ext. papers

27,831  
ext. citations

16.8  
avg, IF

7.05  
L-index

#	Paper	IF	Citations
64	affy--analysis of Affymetrix GeneChip data at the probe level. <i>Bioinformatics</i> , <b>2004</b> , 20, 307-15	7.2	3733
63	Salmon provides fast and bias-aware quantification of transcript expression. <i>Nature Methods</i> , <b>2017</b> , 14, 417-419	21.6	3249
62	Orchestrating high-throughput genomic analysis with Bioconductor. <i>Nature Methods</i> , <b>2015</b> , 12, 115-21	21.6	1949
61	Minfi: a flexible and comprehensive Bioconductor package for the analysis of Infinium DNA methylation microarrays. <i>Bioinformatics</i> , <b>2014</b> , 30, 1363-9	7.2	1941
60	The human colon cancer methylome shows similar hypo- and hypermethylation at conserved tissue-specific CpG island shores. <i>Nature Genetics</i> , <b>2009</b> , 41, 178-186	36.3	1681
59	Tackling the widespread and critical impact of batch effects in high-throughput data. <i>Nature Reviews Genetics</i> , <b>2010</b> , 11, 733-9	30.1	1232
58	Increased methylation variation in epigenetic domains across cancer types. <i>Nature Genetics</i> , <b>2011</b> , 43, 768-75	36.3	825
57	Multiple-laboratory comparison of microarray platforms. <i>Nature Methods</i> , <b>2005</b> , 2, 345-50	21.6	716
56	Accounting for cellular heterogeneity is critical in epigenome-wide association studies. <i>Genome Biology</i> , <b>2014</b> , 15, R31	18.3	660
55	BSmooth: from whole genome bisulfite sequencing reads to differentially methylated regions. <i>Genome Biology</i> , <b>2012</b> , 13, R83	18.3	445
54	Bump hunting to identify differentially methylated regions in epigenetic epidemiology studies. <i>International Journal of Epidemiology</i> , <b>2012</b> , 41, 200-9	7.8	430
53	Meta-analysis of gut microbiome studies identifies disease-specific and shared responses. <i>Nature Communications</i> , <b>2017</b> , 8, 1784	17.4	425
52	Removing technical variability in RNA-seq data using conditional quantile normalization. <i>Biostatistics</i> , <b>2012</b> , 13, 204-16	3.7	378
51	Comprehensive high-throughput arrays for relative methylation (CHARM). <i>Genome Research</i> , <b>2008</b> , 18, 780-90	9.7	350
50	Mortality in Puerto Rico after Hurricane Maria. <i>New England Journal of Medicine</i> , <b>2018</b> , 379, 162-170	59.2	308
49	Missing data and technical variability in single-cell RNA-sequencing experiments. <i>Biostatistics</i> , <b>2018</b> , 19, 562-578	3.7	223
48	Challenges and emerging directions in single-cell analysis. <i>Genome Biology</i> , <b>2017</b> , 18, 84	18.3	166

47	Gene set enrichment analysis made simple. <i>Statistical Methods in Medical Research</i> , <b>2009</b> , 18, 565-75	2.3	134
46	Feature selection and dimension reduction for single-cell RNA-Seq based on a multinomial model. <i>Genome Biology</i> , <b>2019</b> , 20, 295	18.3	122
45	SMARCB1 is required for widespread BAF complex-mediated activation of enhancers and bivalent promoters. <i>Nature Genetics</i> , <b>2017</b> , 49, 1613-1623	36.3	121
44	Large hypomethylated blocks as a universal defining epigenetic alteration in human solid tumors. <i>Genome Medicine</i> , <b>2014</b> , 6, 61	14.4	120
43	A benchmark for RNA-seq quantification pipelines. <i>Genome Biology</i> , <b>2016</b> , 17, 74	18.3	117
42	Excess deaths associated with covid-19 pandemic in 2020: age and sex disaggregated time series analysis in 29 high income countries. <i>BMJ, The</i> , <b>2021</b> , 373, n1137	5.9	101
41	Modeling of RNA-seq fragment sequence bias reduces systematic errors in transcript abundance estimation. <i>Nature Biotechnology</i> , <b>2016</b> , 34, 1287-1291	44.5	91
40	Age and sun exposure-related widespread genomic blocks of hypomethylation in nonmalignant skin. <i>Genome Biology</i> , <b>2015</b> , 16, 80	18.3	83
39	High-throughput identification of RNA nuclear enrichment sequences. <i>EMBO Journal</i> , <b>2018</b> , 37,	13	64
38	Robust decomposition of cell type mixtures in spatial transcriptomics. <i>Nature Biotechnology</i> , <b>2021</b> ,	44.5	64
37	quanto: a data-driven approach to guide the choice of an appropriate normalization method. <i>Genome Biology</i> , <b>2015</b> , 16, 117	18.3	54
36	Detection and accurate false discovery rate control of differentially methylated regions from whole genome bisulfite sequencing. <i>Biostatistics</i> , <b>2019</b> , 20, 367-383	3.7	51
35	Correcting for cell-type heterogeneity in epigenome-wide association studies: revisiting previous analyses. <i>Nature Methods</i> , <b>2017</b> , 14, 216-217	21.6	47
34	A species-generalized probabilistic model-based definition of CpG islands. <i>Mammalian Genome</i> , <b>2009</b> , 20, 674-80	3.2	47
33	Progressive immune dysfunction with advancing disease stage in renal cell carcinoma. <i>Cancer Cell</i> , <b>2021</b> , 39, 632-648.e8	24.3	42
32	Large-Scale Topological Changes Restrain Malignant Progression in Colorectal Cancer. <i>Cell</i> , <b>2020</b> , 182, 1474-1489.e23	56.2	41
31	Smooth quantile normalization. <i>Biostatistics</i> , <b>2018</b> , 19, 185-198	3.7	37
30	A Guide to Teaching Data Science. <i>American Statistician</i> , <b>2018</b> , 72, 382-391	5	34

29	Missing Data and Technical Variability in Single-Cell RNA- Sequencing Experiments		33
28	Flexible expressed region analysis for RNA-seq with derfinder. <i>Nucleic Acids Research</i> , <b>2017</b> , 45, e9	20.1	32
27	A multi-omic analysis of human naïve CD4+ T cells. <i>BMC Systems Biology</i> , <b>2015</b> , 9, 75	3.5	30
26	Bisulfite-independent analysis of CpG island methylation enables genome-scale stratification of single cells. <i>Nucleic Acids Research</i> , <b>2017</b> , 45, e77	20.1	24
25	Feature Selection and Dimension Reduction for Single Cell RNA-Seq based on a Multinomial Model		24
24	Genome-wide methylation profiling reveals Zinc finger protein 516 (ZNF516) and FK-506-binding protein 6 (FKBP6) promoters frequently methylated in cervical neoplasia, associated with HPV status and ethnicity in a Chilean population. <i>Epigenetics</i> , <b>2014</b> , 9, 308-17	5.7	21
23	Accounting for GC-content bias reduces systematic errors and batch effects in ChIP-seq data. <i>Genome Research</i> , <b>2017</b> , 27, 1930-1938	9.7	18
22	Robust decomposition of cell type mixtures in spatial transcriptomics		16
21	Stem-like intestinal Th17 cells give rise to pathogenic effector T <sub>H</sub> 17 cells during autoimmunity. <i>Cell</i> , <b>2021</b> ,	56.2	13
20	Quantifying the dynamics of migration after Hurricane Maria in Puerto Rico. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2020</b> , 117, 32772-32778	11.5	10
19	The Role of Academia in Data Science Education		9
18	Monitoring Health Systems by Estimating Excess Mortality		7
17	Genome-wide repressive capacity of promoter DNA methylation is revealed through epigenomic manipulation		7
16	Quantile normalization of single-cell RNA-seq read counts without unique molecular identifiers. <i>Genome Biology</i> , <b>2020</b> , 21, 160	18.3	6
15	Smooth Quantile Normalization		6
14	methylCC: technology-independent estimation of cell type composition using differentially methylated regions. <i>Genome Biology</i> , <b>2019</b> , 20, 261	18.3	6
13	Visualization and probability-based scoring of structural variants within repetitive sequences. <i>Bioinformatics</i> , <b>2014</b> , 30, 1514-21	7.2	4
12	Varying-Censoring Aware Matrix Factorization for Single Cell RNA-Sequencing		4

11	Effectiveness estimates of three COVID-19 vaccines based on observational data from Puerto Rico.. <i>The Lancet Regional Health Americas</i> , <b>2022</b> , 9, 100212		3
10	Characterizing batch effects and binding site-specific variability in ChIP-seq data. <i>NAR Genomics and Bioinformatics</i> , <b>2021</b> , 3, lqab098	3-7	2
9	Time-Varying Effectiveness of Three Covid-19 Vaccines in Puerto Rico		2
8	A probabilistic gene expression barcode for annotation of cell-types from single cell RNA-seq data		2
7	All-cause excess mortality in the State of Gujarat, India, during the COVID-19 pandemic (March 2020-April 2021)		2
6	Effectiveness of different booster regimens for preventing infection and adverse outcomes in Puerto Rico		1
5	Quantifying the Dynamics of Migration after a Disaster: Impact of Hurricane Maria in Puerto Rico		1
4	Quantile normalization of single-cell RNA-seq read counts without unique molecular identifiers		1
3	Selection-Corrected Statistical Inference for Region Detection With High-Throughput Assays. <i>Journal of the American Statistical Association</i> , <b>2019</b> , 114, 1351-1365	2.8	1
2	Vaginal microbiome topic modeling of laboring Ugandan women with and without fever. <i>Npj Biofilms and Microbiomes</i> , <b>2021</b> , 7, 75	8.2	0
1	Promoter Hypermethylation in MLL-r Leukemia: Biology and Therapeutic Targeting.. <i>Blood</i> , <b>2009</b> , 114, 3472-3472	2.2	