

# Vineet Bafna

## List of Publications by Citations

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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.

184  
papers

38,431  
citations

56  
h-index

196  
g-index

211  
ext. papers

46,241  
ext. citations

9.7  
avg, IF

6.49  
L-index

| #   | Paper   | IF   | Citations |
|-----|---|------|-----------|
| 184 | The sequence of the human genome. <i>Science</i> , <b>2001</b> , 291, 1304-51   | 33.3 | 10609     |
| 183 | A global reference for human genetic variation. <i>Nature</i> , <b>2015</b> , 526, 68-74  | 50.4 | 8599      |
| 182 | An integrated map of genetic variation from 1,092 human genomes. <i>Nature</i> , <b>2012</b> , 491, 56-65   | 50.4 | 6049      |
| 181 | The diploid genome sequence of an individual human. <i>PLoS Biology</i> , <b>2007</b> , 5, e254   | 9.7  | 1249      |
| 180 | The Sorcerer II Global Ocean Sampling expedition: expanding the universe of protein families. <i>PLoS Biology</i> , <b>2007</b> , 5, e16  | 9.7  | 638       |
| 179 | Integrated Proteogenomic Characterization of Human High-Grade Serous Ovarian Cancer. <i>Cell</i> , <b>2016</b> , 166, 755-765   | 56.2 | 544       |
| 178 | De novo somatic mutations in components of the PI3K-AKT3-mTOR pathway cause hemimegalencephaly. <i>Nature Genetics</i> , <b>2012</b> , 44, 941-5  | 36.3 | 505       |
| 177 | InsPecT: identification of posttranslationally modified peptides from tandem mass spectra. <i>Analytical Chemistry</i> , <b>2005</b> , 77, 4626-39  | 7.8  | 502       |
| 176 | Human beta-defensin 2 is a salt-sensitive peptide antibiotic expressed in human lung. <i>Journal of Clinical Investigation</i> , <b>1998</b> , 102, 874-80                                      | 15.9 | 449       |
| 175 | The dog genome: survey sequencing and comparative analysis. <i>Science</i> , <b>2003</b> , 301, 1898-903  | 33.3 | 422       |
| 174 | Sequence and structural variation in a human genome uncovered by short-read, massively parallel ligation sequencing using two-base encoding. <i>Genome Research</i> , <b>2009</b> , 19, 1527-41 | 9.7  | 401       |
| 173 | A multidimensional chromatography technology for in-depth phosphoproteome analysis. <i>Molecular and Cellular Proteomics</i> , <b>2008</b> , 7, 1389-96   | 7.6  | 392       |
| 172 | Global DNA hypomethylation coupled to repressive chromatin domain formation and gene silencing in breast cancer. <i>Genome Research</i> , <b>2012</b> , 22, 246-58                              | 9.7  | 385       |
| 171 | Extrachromosomal oncogene amplification drives tumour evolution and genetic heterogeneity. <i>Nature</i> , <b>2017</b> , 543, 122-125   | 50.4 | 260       |
| 170 | Sorting by Transpositions. <i>SIAM Journal on Discrete Mathematics</i> , <b>1998</b> , 11, 224-240  | 0.7  | 258       |
| 169 | Genome Rearrangements and Sorting by Reversals. <i>SIAM Journal on Computing</i> , <b>1996</b> , 25, 272-289  | 1.1  | 252       |
| 168 | Identification of post-translational modifications by blind search of mass spectra. <i>Nature Biotechnology</i> , <b>2005</b> , 23, 1562-7  | 44.5 | 231       |

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|-----|---|------|-----|
| 167 | Discovery and revision of Arabidopsis genes by proteogenomics. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2008</b> , 105, 21034-8  | 11.5 | 226 |
| 166 | Age-related changes in human crystallins determined from comparative analysis of post-translational modifications in young and aged lens: does deamidation contribute to crystallin insolubility?. <i>Journal of Proteome Research</i> , <b>2006</b> , 5, 2554-66 | 5.6  | 224 |
| 165 | A 2-Approximation Algorithm for the Undirected Feedback Vertex Set Problem. <i>SIAM Journal on Discrete Mathematics</i> , <b>1999</b> , 12, 289-297   | 0.7  | 215 |
| 164 | HapCUT: an efficient and accurate algorithm for the haplotype assembly problem. <i>Bioinformatics</i> , <b>2008</b> , 24, i153-9  | 7.2  | 198 |
| 163 | Exome sequencing can improve diagnosis and alter patient management. <i>Science Translational Medicine</i> , <b>2012</b> , 4, 138ra78   | 17.5 | 191 |
| 162 | HapCUT2: robust and accurate haplotype assembly for diverse sequencing technologies. <i>Genome Research</i> , <b>2017</b> , 27, 801-812   | 9.7  | 161 |
| 161 | Whole proteome analysis of post-translational modifications: applications of mass-spectrometry for proteogenomic annotation. <i>Genome Research</i> , <b>2007</b> , 17, 1362-77   | 9.7  | 155 |
| 160 | Improving gene annotation using peptide mass spectrometry. <i>Genome Research</i> , <b>2007</b> , 17, 231-9   | 9.7  | 144 |
| 159 | SCOPE: a probabilistic model for scoring tandem mass spectra against a peptide database. <i>Bioinformatics</i> , <b>2001</b> , 17 Suppl 1, S13-21   | 7.2  | 134 |
| 158 | Circular ecDNA promotes accessible chromatin and high oncogene expression. <i>Nature</i> , <b>2019</b> , 575, 699-703   | 50.4 | 134 |
| 157 | Proteogenomics to discover the full coding content of genomes: a computational perspective. <i>Journal of Proteomics</i> , <b>2010</b> , 73, 2124-35  | 3.9  | 132 |
| 156 | Deconvolution and database search of complex tandem mass spectra of intact proteins: a combinatorial approach. <i>Molecular and Cellular Proteomics</i> , <b>2010</b> , 9, 2772-82  | 7.6  | 130 |
| 155 | iDASH: integrating data for analysis, anonymization, and sharing. <i>Journal of the American Medical Informatics Association: JAMIA</i> , <b>2012</b> , 19, 196-201   | 8.6  | 114 |
| 154 | Protein identification using top-down. <i>Molecular and Cellular Proteomics</i> , <b>2012</b> , 11, M111.008524   | 7.6  | 112 |
| 153 | Extrachromosomal oncogene amplification in tumour pathogenesis and evolution. <i>Nature Reviews Cancer</i> , <b>2019</b> , 19, 283-288  | 31.3 | 108 |
| 152 | Peptide sequence tags for fast database search in mass-spectrometry. <i>Journal of Proteome Research</i> , <b>2005</b> , 4, 1287-95   | 5.6  | 103 |
| 151 | Haplotyping as perfect phylogeny: a direct approach. <i>Journal of Computational Biology</i> , <b>2003</b> , 10, 323-40   | 1.7  | 91  |
| 150 | Proteogenomic database construction driven from large scale RNA-seq data. <i>Journal of Proteome Research</i> , <b>2014</b> , 13, 21-8  | 5.6  | 90  |

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|-----|---|------|----|
| 149 | Whole-genome sequencing uncovers the genetic basis of chronic mountain sickness in Andean highlanders. <i>American Journal of Human Genetics</i> , <b>2013</b> , 93, 452-62                     | 11   | 90 |
| 148 | Comparative proteogenomics: combining mass spectrometry and comparative genomics to analyze multiple genomes. <i>Genome Research</i> , <b>2008</b> , 18, 1133-42                                | 9.7  | 90 |
| 147 | An MCMC algorithm for haplotype assembly from whole-genome sequence data. <i>Genome Research</i> , <b>2008</b> , 18, 1336-46  | 9.7  | 88 |
| 146 | Experimental selection of hypoxia-tolerant <i>Drosophila melanogaster</i> . <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2011</b> , 108, 2349-54 | 11.5 | 85 |
| 145 | Optimal haplotype block-free selection of tagging SNPs for genome-wide association studies. <i>Genome Research</i> , <b>2004</b> , 14, 1633-40  | 9.7  | 84 |
| 144 | Using Genome Query Language to uncover genetic variation. <i>Bioinformatics</i> , <b>2014</b> , 30, 1-8   | 7.2  | 82 |
| 143 | NAD metabolic dependency in cancer is shaped by gene amplification and enhancer remodelling. <i>Nature</i> , <b>2019</b> , 569, 570-575   | 50.4 | 81 |
| 142 | SNPs Problems, Complexity, and Algorithms. <i>Lecture Notes in Computer Science</i> , <b>2001</b> , 182-193   | 0.9  | 80 |
| 141 | Extrachromosomal DNA is associated with oncogene amplification and poor outcome across multiple cancers. <i>Nature Genetics</i> , <b>2020</b> , 52, 891-897                                     | 36.3 | 79 |
| 140 | Learning natural selection from the site frequency spectrum. <i>Genetics</i> , <b>2013</b> , 195, 181-93  | 4    | 78 |
| 139 | Deciphering the genetic basis of common diseases by integrated functional annotation of common and rare variants. <i>Genome Biology</i> , <b>2010</b> , 11,                                     | 18.3 | 78 |
| 138 | A Polynomial-Time Approximation Scheme for Minimum Routing Cost Spanning Trees. <i>SIAM Journal on Computing</i> , <b>2000</b> , 29, 761-778  | 1.1  | 78 |
| 137 | Expansion of the mycobacterial "PUPylome". <i>Molecular BioSystems</i> , <b>2010</b> , 6, 376-85  |      | 75 |
| 136 | A covering method for detecting genetic associations between rare variants and common phenotypes. <i>PLoS Computational Biology</i> , <b>2010</b> , 6, e1000954                                 | 5    | 73 |
| 135 | QNet: a tool for querying protein interaction networks. <i>Journal of Computational Biology</i> , <b>2008</b> , 15, 913-25  |      | 71 |
| 134 | An automated proteogenomic method uses mass spectrometry to reveal novel genes in <i>Zea mays</i> . <i>Molecular and Cellular Proteomics</i> , <b>2014</b> , 13, 157-67                         | 7.6  | 69 |
| 133 | Evaluation of paired-end sequencing strategies for detection of genome rearrangements in cancer. <i>PLoS Computational Biology</i> , <b>2008</b> , 4, e1000051                                  | 5    | 63 |
| 132 | Exploring the landscape of focal amplifications in cancer using AmpliconArchitect. <i>Nature Communications</i> , <b>2019</b> , 10, 392   | 17.4 | 59 |

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|-----|---|------|----|
| 131 | Whole genome sequencing of Ethiopian highlanders reveals conserved hypoxia tolerance genes. <i>Genome Biology</i> , <b>2014</b> , 15, R36   | 18.3 | 59 |
| 130 | Inferring gene ontologies from pairwise similarity data. <i>Bioinformatics</i> , <b>2014</b> , 30, i34-42   | 7.2  | 57 |
| 129 | Compressing genomic sequence fragments using SlimGene. <i>Journal of Computational Biology</i> , <b>2011</b> , 18, 401-13   | 1.7  | 57 |
| 128 | A Survey of Computational Methods for Determining Haplotypes. <i>Lecture Notes in Computer Science</i> , <b>2004</b> , 26-47  | 0.9  | 55 |
| 127 | On the Approximability of Numerical Taxonomy (Fitting Distances by Tree Metrics). <i>SIAM Journal on Computing</i> , <b>1998</b> , 28, 1073-1085  | 1.1  | 52 |
| 126 | Evidence for large inversion polymorphisms in the human genome from HapMap data. <i>Genome Research</i> , <b>2007</b> , 17, 219-30  | 9.7  | 51 |
| 125 | Robustness of inference of haplotype block structure. <i>Journal of Computational Biology</i> , <b>2003</b> , 10, 13-9  | 1.7  | 51 |
| 124 | Virmid: accurate detection of somatic mutations with sample impurity inference. <i>Genome Biology</i> , <b>2013</b> , 14, R90   | 18.3 | 50 |
| 123 | Sensitive gene fusion detection using ambiguously mapping RNA-Seq read pairs. <i>Bioinformatics</i> , <b>2011</b> , 27, 1068-75   | 7.2  | 48 |
| 122 | Proteogenomic strategies for identification of aberrant cancer peptides using large-scale next-generation sequencing data. <i>Proteomics</i> , <b>2014</b> , 14, 2719-30                            | 4.8  | 47 |
| 121 | Fast and accurate alignment of multiple protein networks. <i>Journal of Computational Biology</i> , <b>2009</b> , 16, 989-99  | 1.7  | 47 |
| 120 | Accurate annotation of peptide modifications through unrestrictive database search. <i>Journal of Proteome Research</i> , <b>2008</b> , 7, 170-81   | 5.6  | 47 |
| 119 | Phosphorylation-specific MS/MS scoring for rapid and accurate phosphoproteome analysis. <i>Journal of Proteome Research</i> , <b>2008</b> , 7, 3373-81  | 5.6  | 45 |
| 118 | Nonoverlapping local alignments (weighted independent sets of axis-parallel rectangles). <i>Discrete Applied Mathematics</i> , <b>1996</b> , 71, 41-53  | 1    | 45 |
| 117 | Construction of a medicinal leech transcriptome database and its application to the identification of leech homologs of neural and innate immune genes. <i>BMC Genomics</i> , <b>2010</b> , 11, 407 | 4.5  | 44 |
| 116 | Shotgun protein sequencing by tandem mass spectra assembly. <i>Analytical Chemistry</i> , <b>2004</b> , 76, 7221-33   | 7.8  | 44 |
| 115 | High-altitude adaptation in humans: from genomics to integrative physiology. <i>Journal of Molecular Medicine</i> , <b>2017</b> , 95, 1269-1282   | 5.5  | 43 |
| 114 | Annotation of the zebrafish genome through an integrated transcriptomic and proteomic analysis. <i>Molecular and Cellular Proteomics</i> , <b>2014</b> , 13, 3184-98                                | 7.6  | 40 |

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| 113 | Template proteogenomics: sequencing whole proteins using an imperfect database. <i>Molecular and Cellular Proteomics</i> , <b>2010</b> , 9, 1260-70  | 7.6  | 40 |
| 112 | An algorithmic approach for breakage-fusion-bridge detection in tumor genomes. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2013</b> , 110, 5546-51   | 11.5 | 39 |
| 111 | Practical Algorithms and Fixed-Parameter Tractability for the Single Individual SNP Haplotyping Problem. <i>Lecture Notes in Computer Science</i> , <b>2002</b> , 29-43  | 0.9  | 38 |
| 110 | Skmer: assembly-free and alignment-free sample identification using genome skims. <i>Genome Biology</i> , <b>2019</b> , 20, 34   | 18.3 | 37 |
| 109 | Searching genomes for noncoding RNA using FastR. <i>IEEE/ACM Transactions on Computational Biology and Bioinformatics</i> , <b>2005</b> , 2, 366-79  | 3    | 37 |
| 108 | A decomposition theory for phylogenetic networks and incompatible characters. <i>Journal of Computational Biology</i> , <b>2007</b> , 14, 1247-72  | 1.7  | 36 |
| 107 | Polynomial and APX-hard cases of the individual haplotyping problem. <i>Theoretical Computer Science</i> , <b>2005</b> , 335, 109-125  | 1.1  | 36 |
| 106 | Endothelin receptor B, a candidate gene from human studies at high altitude, improves cardiac tolerance to hypoxia in genetically engineered heterozygote mice. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2015</b> , 112, 10425-30 | 11.5 | 35 |
| 105 | Diversity, Productivity, and Stability of an Industrial Microbial Ecosystem. <i>Applied and Environmental Microbiology</i> , <b>2016</b> , 82, 2494-2505   | 4.8  | 34 |
| 104 | Identifying the favored mutation in a positive selective sweep. <i>Nature Methods</i> , <b>2018</b> , 15, 279-282  | 21.6 | 33 |
| 103 | Haplotypes and informative SNP selection algorithms <b>2003</b> ,  |      | 33 |
| 102 | Unrestrictive identification of post-translational modifications through peptide mass spectrometry. <i>Nature Protocols</i> , <b>2006</b> , 1, 67-72   | 18.8 | 32 |
| 101 | Orthologous repeats and mammalian phylogenetic inference. <i>Genome Research</i> , <b>2005</b> , 15, 998-1006  | 9.7  | 32 |
| 100 | Accurate mass spectrometry based protein quantification via shared peptides. <i>Journal of Computational Biology</i> , <b>2012</b> , 19, 337-48  | 1.7  | 31 |
| 99  | The number of recombination events in a sample history: conflict graph and lower bounds. <i>IEEE/ACM Transactions on Computational Biology and Bioinformatics</i> , <b>2004</b> , 1, 78-90   | 3    | 31 |
| 98  | The elusive evidence for chromothripsis. <i>Nucleic Acids Research</i> , <b>2014</b> , 42, 8231-42   | 20.1 | 30 |
| 97  | Computing similarity between RNA strings. <i>Lecture Notes in Computer Science</i> , <b>1995</b> , 1-16  | 0.9  | 30 |
| 96  | Approximation algorithms for multiple sequence alignment. <i>Theoretical Computer Science</i> , <b>1997</b> , 182, 233-244   | 1.1  | 29 |

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| 95 | Automated querying and identification of novel peptides using MALDI mass spectrometric imaging. <i>Journal of Proteome Research</i> , <b>2011</b> , 10, 1915-28  | 5.6  | 28 |
| 94 | RAPID detection of gene-gene interactions in genome-wide association studies. <i>Bioinformatics</i> , <b>2010</b> , 26, 2856-62  | 7.2  | 28 |
| 93 | Fast and Accurate Alignment of Multiple Protein Networks <b>2008</b> , 246-256   |      | 28 |
| 92 | Ultraaccurate genome sequencing and haplotyping of single human cells. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2017</b> , 114, 12512-12517                                 | 11.5 | 27 |
| 91 | Wessim: a whole-exome sequencing simulator based on in silico exome capture. <i>Bioinformatics</i> , <b>2013</b> , 29, 1076-7  | 7.2  | 26 |
| 90 | QNet: A Tool for Querying Protein Interaction Networks. <i>Lecture Notes in Computer Science</i> , <b>2007</b> , 1-15  | 0.9  | 26 |
| 89 | Targeted genotyping of variable number tandem repeats with adVNTR. <i>Genome Research</i> , <b>2018</b> , 28, 1709-1719  | 9.1  | 26 |
| 88 | Resurrection of a clinical antibody: template proteogenomic de novo proteomic sequencing and reverse engineering of an anti-lymphotoxin- $\alpha$ antibody. <i>Proteomics</i> , <b>2011</b> , 11, 395-405                      | 4.8  | 25 |
| 87 | A note on efficient computation of haplotypes via perfect phylogeny. <i>Journal of Computational Biology</i> , <b>2004</b> , 11, 858-66  | 1.7  | 25 |
| 86 | Protein-protein interaction network evaluation for identifying potential drug targets. <i>Journal of Computational Biology</i> , <b>2010</b> , 17, 669-84  | 1.7  | 24 |
| 85 | Longitudinal assessment of tumor development using cancer avatars derived from genetically engineered pluripotent stem cells. <i>Nature Communications</i> , <b>2020</b> , 11, 550   | 17.4 | 23 |
| 84 | ViFi: accurate detection of viral integration and mRNA fusion reveals indiscriminate and unregulated transcription in proximal genomic regions in cervical cancer. <i>Nucleic Acids Research</i> , <b>2018</b> , 46, 3309-3325 | 20.1 | 23 |
| 83 | Population sequencing of two endocannabinoid metabolic genes identifies rare and common regulatory variants associated with extreme obesity and metabolite level. <i>Genome Biology</i> , <b>2010</b> , 11, R118               | 18.3 | 23 |
| 82 | A sequence-based filtering method for ncRNA identification and its application to searching for riboswitch elements. <i>Bioinformatics</i> , <b>2006</b> , 22, e557-65   | 7.2  | 23 |
| 81 | Consensus folding of unaligned RNA sequences revisited. <i>Journal of Computational Biology</i> , <b>2006</b> , 13, 283-95   | 1.7  | 23 |
| 80 | An Algorithm for Orienting Graphs Based on Cause-Effect Pairs and Its Applications to Orienting Protein Networks. <i>Lecture Notes in Computer Science</i> , <b>2008</b> , 222-232   | 0.9  | 23 |
| 79 | Advanced Proteogenomic Analysis Reveals Multiple Peptide Mutations and Complex Immunoglobulin Peptides in Colon Cancer. <i>Journal of Proteome Research</i> , <b>2015</b> , 14, 3555-67  | 5.6  | 22 |
| 78 | Next-Generation Sequencing of Plasmodium vivax Patient Samples Shows Evidence of Direct Evolution in Drug-Resistance Genes. <i>ACS Infectious Diseases</i> , <b>2015</b> , 1, 367-79   | 5.5  | 22 |

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|----|--|------|----|
| 77 | Senp1 drives hypoxia-induced polycythemia via GATA1 and Bcl-xL in subjects with MongeS disease. <i>Journal of Experimental Medicine</i> , <b>2016</b> , 213, 2729-2744 | 16.6 | 22 |
| 76 | AMASS: algorithm for MSI analysis by semi-supervised segmentation. <i>Journal of Proteome Research</i> , <b>2011</b> , 10, 4734-43                                     | 5.6  | 22 |
| 75 | The genetic basis of chronic mountain sickness. <i>Physiology</i> , <b>2014</b> , 29, 403-12   | 9.8  | 21 |
| 74 | Constant ratio approximations of the weighted feedback vertex set problem for undirected graphs. <i>Lecture Notes in Computer Science</i> , <b>1995</b> , 142-151      | 0.9  | 21 |
| 73 | Cerulean: A Hybrid Assembly Using High Throughput Short and Long Reads. <i>Lecture Notes in Computer Science</i> , <b>2013</b> , 349-363                               | 0.9  | 21 |
| 72 | Designing deep sequencing experiments: detecting structural variation and estimating transcript abundance. <i>BMC Genomics</i> , <b>2010</b> , 11, 385                 | 4.5  | 20 |
| 71 | The TGFβ Promoter SNP C-509T and Food Sensitization Promote Esophageal Remodeling in Pediatric Eosinophilic Esophagitis. <i>PLoS ONE</i> , <b>2015</b> , 10, e0144651  | 3.7  | 20 |
| 70 | New Insights into the Genetic Basis of MongeS Disease and Adaptation to High-Altitude. <i>Molecular Biology and Evolution</i> , <b>2017</b> , 34, 3154-3168            | 8.3  | 19 |
| 69 | Structural alignment of pseudoknotted RNA. <i>Journal of Computational Biology</i> , <b>2008</b> , 15, 489-504   | 1.7  | 18 |
| 68 | ecDNA hubs drive cooperative intermolecular oncogene expression. <i>Nature</i> , <b>2021</b> ,   | 50.4 | 18 |
| 67 | ProteoStorm: An Ultrafast Metaproteomics Database Search Framework. <i>Cell Systems</i> , <b>2018</b> , 7, 463-467. <del>6.6</del>                                     | 6.6  | 18 |
| 66 | Clear: Composition of Likelihoods for Evolve and Resequencing Experiments. <i>Genetics</i> , <b>2017</b> , 206, 1011-1023  | 17   | 17 |
| 65 | MHC class I loaded ligands from breast cancer cell lines: A potential HLA-I-typed antigen collection. <i>Journal of Proteomics</i> , <b>2018</b> , 176, 13-23          | 3.9  | 17 |
| 64 | On the design of clone-based haplotyping. <i>Genome Biology</i> , <b>2013</b> , 14, R100   | 18.3 | 17 |
| 63 | Optimization of primer design for the detection of variable genomic lesions in cancer. <i>Bioinformatics</i> , <b>2007</b> , 23, 2807-15                               | 7.2  | 16 |
| 62 | Genetic simulation tools for post-genome wide association studies of complex diseases. <i>Genetic Epidemiology</i> , <b>2015</b> , 39, 11-19                           | 2.6  | 15 |
| 61 | Amplification and thrifty single-molecule sequencing of recurrent somatic structural variations. <i>Genome Research</i> , <b>2014</b> , 24, 318-28                     | 9.7  | 15 |
| 60 | Strobe sequence design for haplotype assembly. <i>BMC Bioinformatics</i> , <b>2011</b> , 12 Suppl 1, S24   | 3.6  | 15 |



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|----|---|------|----|
| 59 | Practical 4Sphosphopantetheine active site discovery from proteomic samples. <i>Journal of Proteome Research</i> , <b>2011</b> , 10, 320-9  | 5.6  | 14 |
| 58 | Combinatorics of the breakage-fusion-bridge mechanism. <i>Journal of Computational Biology</i> , <b>2012</b> , 19, 662-78   | 1.7  | 14 |
| 57 | AmpliconReconstructor integrates NGS and optical mapping to resolve the complex structures of focal amplifications. <i>Nature Communications</i> , <b>2020</b> , 11, 4374                     | 17.4 | 14 |
| 56 | Predicting Carriers of Ongoing Selective Sweeps without Knowledge of the Favored Allele. <i>PLoS Genetics</i> , <b>2015</b> , 11, e1005527  | 6    | 13 |
| 55 | Identification of post-translational modifications via blind search of mass-spectra <b>2005</b> , 157-66  |      | 13 |
| 54 | Inference about recombination from haplotype data: lower bounds and recombination hotspots. <i>Journal of Computational Biology</i> , <b>2006</b> , 13, 501-21                                | 1.7  | 13 |
| 53 | FastR: fast database search tool for non-coding RNA <b>2004</b> , 52-61   |      | 13 |
| 52 | Proteogenomic Annotation of Chinese Hamsters Reveals Extensive Novel Translation Events and Endogenous Retroviral Elements. <i>Journal of Proteome Research</i> , <b>2019</b> , 18, 2433-2445 | 5.6  | 12 |
| 51 | EcSeg: Semantic Segmentation of Metaphase Images Containing Extrachromosomal DNA. <i>IScience</i> , <b>2019</b> , 21, 428-435   | 6.1  | 12 |
| 50 | TCLUST: a fast method for clustering genome-scale expression data. <i>IEEE/ACM Transactions on Computational Biology and Bioinformatics</i> , <b>2011</b> , 8, 808-18                         | 3    | 12 |
| 49 | Detecting non-adjointing correlations with signals in DNA <b>1998</b> ,   |      | 12 |
| 48 | Combinatorial Problems Arising in SNP and Haplotype Analysis. <i>Lecture Notes in Computer Science</i> , <b>2003</b> , 26-47  | 0.9  | 11 |
| 47 | Speeding up tandem mass spectral identification using indexes. <i>Bioinformatics</i> , <b>2012</b> , 28, 1692-7   | 7.2  | 10 |
| 46 | Ligand-receptor pairing via tree comparison. <i>Journal of Computational Biology</i> , <b>2000</b> , 7, 59-70   | 1.7  | 10 |
| 45 | Variable number tandem repeats mediate the expression of proximal genes. <i>Nature Communications</i> , <b>2021</b> , 12, 2075  | 17.4 | 10 |
| 44 | Abstractions for Genomics. <i>Communications of the ACM</i> , <b>2013</b> , 56, 83-93   | 2.5  | 9  |
| 43 | Extrachromosomal DNA (ecDNA) in cancer pathogenesis. <i>Current Opinion in Genetics and Development</i> , <b>2021</b> , 66, 78-82   | 4.9  | 9  |
| 42 | Reconstructing breakage fusion bridge architectures using noisy copy numbers. <i>Journal of Computational Biology</i> , <b>2015</b> , 22, 577-94  | 1.7  | 7  |

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|----|---|------|---|
| 41 | Improved Recombination Lower Bounds for Haplotype Data. <i>Lecture Notes in Computer Science</i> , <b>2005</b> , 569-584  | 0.9  | 7 |
| 40 | Compressing Genomic Sequence Fragments Using SlimGene. <i>Lecture Notes in Computer Science</i> , <b>2010</b> , 310-324   | 0.9  | 7 |
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| 38 | The impact of contaminants on the accuracy of genome skimming and the effectiveness of exclusion read filters. <i>Molecular Ecology Resources</i> , <b>2020</b> , 20, 649                         | 8.4  | 6 |
| 37 | Reprever: resolving low-copy duplicated sequences using template driven assembly. <i>Nucleic Acids Research</i> , <b>2013</b> , 41, e128  | 20.1 | 5 |
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| 34 | Extrachromosomal DNA: An Emerging Hallmark in Human Cancer. <i>Annual Review of Pathology: Mechanisms of Disease</i> , <b>2021</b> ,  | 34   | 5 |
| 33 | Optimizing PCR assays for DNA-based cancer diagnostics. <i>Journal of Computational Biology</i> , <b>2010</b> , 17, 369-81  | 1.7  | 4 |
| 32 | Sample reproducibility of genetic association using different multimarker TDTs in genome-wide association studies: characterization and a new approach. <i>PLoS ONE</i> , <b>2012</b> , 7, e29613 | 3.7  | 4 |
| 31 | Estimating repeat spectra and genome length from low-coverage genome skims with RESPECT. <i>PLoS Computational Biology</i> , <b>2021</b> , 17, e1009449   | 5    | 4 |
| 30 | Shared Peptides in Mass Spectrometry Based Protein Quantification. <i>Lecture Notes in Computer Science</i> , <b>2009</b> , 356-371   | 0.9  | 4 |
| 29 | Fine-mapping the Favored Mutation in a Positive Selective Sweep   |      | 4 |
| 28 | FaNDOM: Fast nested distance-based seeding of optical maps. <i>Patterns</i> , <b>2021</b> , 2, 100248   | 5.1  | 4 |
| 27 | Principles of ecDNA random inheritance drive rapid genome change and therapy resistance in human cancers  |      | 4 |
| 26 | The Antibody Repertoire of Colorectal Cancer. <i>Molecular and Cellular Proteomics</i> , <b>2017</b> , 16, 2111-2124  | 7.6  | 3 |
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| 23 | Multiple mechanisms drive genomic adaptation to extreme O levels in <i>Drosophila melanogaster</i> . <i>Nature Communications</i> , <b>2021</b> , 12, 997  | 17.4 | 3 |
| 22 | Extrachromosomal DNA in HPV-Mediated Oropharyngeal Cancer Drives Diverse Oncogene Transcription. <i>Clinical Cancer Research</i> , <b>2021</b> ,   | 12.9 | 3 |
| 21 | Computing the Statistical Significance of Overlap between Genome Annotations with iStat. <i>Cell Systems</i> , <b>2019</b> , 8, 523-529.e4   | 10.6 | 2 |
| 20 | Structural Alignment of Pseudoknotted RNA. <i>Lecture Notes in Computer Science</i> , <b>2006</b> , 143-158  | 0.9  | 2 |
| 19 | Variable Number Tandem Repeats mediate the expression of proximal genes  |      | 2 |
| 18 | CONSULT: accurate contamination removal using locality-sensitive hashing. <i>NAR Genomics and Bioinformatics</i> , <b>2021</b> , 3, lqab071  | 3.7  | 2 |
| 17 | Estimating repeat spectra and genome length from low-coverage genome skims with RESPECT  |      | 2 |
| 16 | Haplotype Allele Frequency (HAF) Score: Predicting Carriers of Ongoing Selective Sweeps Without Knowledge of the Adaptive Allele. <i>Lecture Notes in Computer Science</i> , <b>2015</b> , 276-280 | 0.9  | 1 |
| 15 | Evaluating genome architecture of a complex region via generalized bipartite matching. <i>BMC Bioinformatics</i> , <b>2013</b> , 14 Suppl 5, S13   | 3.6  | 1 |
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| 13 | Optical genome mapping identifies rare structural variations as predisposition factors associated with severe COVID-19.. <i>IScience</i> , <b>2022</b> , 103760                                    | 6.1  | 1 |
| 12 | Targeted profiling of human extrachromosomal DNA by CRISPR-CATCH   |      | 1 |
| 11 | Frequent extrachromosomal oncogene amplification drives aggressive tumors  |      | 1 |
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| 9  | Reconstructing Breakage Fusion Bridge Architectures Using Noisy Copy Numbers. <i>Lecture Notes in Computer Science</i> , <b>2014</b> , 400-417   | 0.9  | 1 |
| 8  | Assembly-free and alignment-free sample identification using genome skims  |      | 1 |
| 7  | InPhaDel: integrative shotgun and proximity-ligation sequencing to phase deletions with single nucleotide polymorphisms. <i>Nucleic Acids Research</i> , <b>2016</b> , 44, e111                    | 20.1 | 1 |
| 6  | Plasticity of extrachromosomal and intrachromosomal BRAF amplifications in overcoming targeted therapy dosage challenges.. <i>Cancer Discovery</i> , <b>2021</b> ,                                 | 24.4 | 1 |

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| 5 | Learning Natural Selection from the Site Frequency Spectrum. <i>Lecture Notes in Computer Science</i> , <b>2013</b> , 230-233   | 0.9 | 0 |
| 4 | Parallel implementation of logic languages. <i>Lecture Notes in Computer Science</i> , <b>1990</b> , 154-165  | 0.9 |   |
| 3 | Optimizing PCR Assays for DNA Based Cancer Diagnostics. <i>Lecture Notes in Computer Science</i> , <b>2009</b> , 220-235  | 0.9 |   |
| 2 | Uncertainty Quantification Using Subsampling for Assembly-Free Estimates of Genomic Distance and Phylogenetic Relationships. <i>Lecture Notes in Computer Science</i> , <b>2022</b> , 366-368 | 0.9 |   |
| 1 | FastViFi: Fast and accurate detection of (Hybrid) Viral DNA and RNA.. <i>NAR Genomics and Bioinformatics</i> , <b>2022</b> , 4, lqac032   | 3.7 |   |