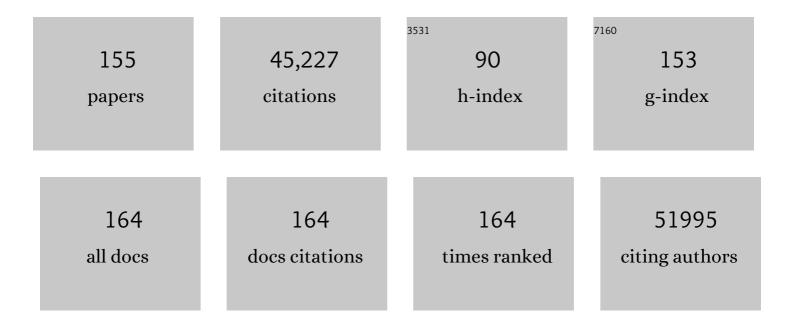
## Alexander van Oudenaarden

List of Publications by Year in descending order

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#	Article	IF	CITATIONS
1	Spatial transcriptomics unveils ZBTB11 as a regulator of cardiomyocyte degeneration in arrhythmogenic cardiomyopathy. Cardiovascular Research, 2023, 119, 477-491.	3.8	17
2	BMP gradient along the intestinal villus axis controls zonated enterocyte and goblet cell states. Cell Reports, 2022, 38, 110438.	6.4	45
3	Identification of the stress granule transcriptome via RNA-editing in single cells and inÂvivo. Cell Reports Methods, 2022, 2, 100235.	2.9	5
4	High-throughput total RNA sequencing in single cells using VASA-seq. Nature Biotechnology, 2022, 40, 1780-1793.	17.5	70
5	Strand-specific single-cell methylomics reveals distinct modes of DNA demethylation dynamics during early mammalian development. Nature Communications, 2021, 12, 1286.	12.8	16
6	3D gastruloids: a novel frontier in stem cell-based in vitro modeling of mammalian gastrulation. Trends in Cell Biology, 2021, 31, 747-759.	7.9	63
7	Single-cell Ribo-seq reveals cell cycle-dependent translational pausing. Nature, 2021, 597, 561-565.	27.8	81
8	H3K9me selectively blocks transcription factor activity and ensures differentiated tissue integrity. Nature Cell Biology, 2021, 23, 1163-1175.	10.3	37
9	LifeTime and improving European healthcare through cell-based interceptive medicine. Nature, 2020, 587, 377-386.	27.8	108
10	Sequencing metabolically labeled transcripts in single cells reveals mRNA turnover strategies. Science, 2020, 367, 1151-1156.	12.6	92
11	Single-cell and spatial transcriptomics reveal somitogenesis in gastruloids. Nature, 2020, 582, 405-409.	27.8	274
12	An in vitro model of early anteroposterior organization during human development. Nature, 2020, 582, 410-415.	27.8	310
13	Unravelling cellular relationships during development and regeneration using genetic lineage tracing. Nature Reviews Molecular Cell Biology, 2019, 20, 753-765.	37.0	124
14	An organoid platform for ovarian cancer captures intra- and interpatient heterogeneity. Nature Medicine, 2019, 25, 838-849.	30.7	486
15	Oral Mucosal Organoids as a Potential Platform for Personalized Cancer Therapy. Cancer Discovery, 2019, 9, 852-871.	9.4	222
16	Ongoing chromosomal instability and karyotype evolution in human colorectal cancer organoids. Nature Genetics, 2019, 51, 824-834.	21.4	162
17	Enteroendocrine and tuft cells support Lgr5 stem cells on Paneth cell depletion. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 26599-26605.	7.1	66
18	Transcription Factor Induction of Ectopic Vascular Blood Stem Cell Niches In Vivo. Blood, 2019, 134, 525-525.	1.4	5

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19	Single-Cell Sequencing of the Healthy and Diseased Heart Reveals Cytoskeleton-Associated Protein 4 as a New Modulator of Fibroblasts Activation. Circulation, 2018, 138, 166-180.	1.6	231
20	Troy+ brain stem cells cycle through quiescence and regulate their number by sensing niche occupancy. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, E610-E619.	7.1	138
21	Blastocyst-like structures generated solely from stem cells. Nature, 2018, 557, 106-111.	27.8	366
22	Expansion of Adult Human Pancreatic Tissue Yields Organoids Harboring Progenitor Cells with Endocrine Differentiation Potential. Stem Cell Reports, 2018, 10, 712-724.	4.8	106
23	Whole-organism clone tracing using single-cell sequencing. Nature, 2018, 556, 108-112.	27.8	345
24	Spatial Transcriptomics of C.Âelegans Males and Hermaphrodites Identifies Sex-Specific Differences in Gene Expression Patterns. Developmental Cell, 2018, 47, 801-813.e6.	7.0	55
25	Mapping the physical network of cellular interactions. Nature Methods, 2018, 15, 547-553.	19.0	121
26	Single-cell transcriptomics reveal the dynamic of haematopoietic stem cell production in the aorta. Nature Communications, 2018, 9, 2517.	12.8	99
27	Tdrd6a Regulates the Aggregation of Buc into Functional Subcellular Compartments that Drive Germ Cell Specification. Developmental Cell, 2018, 46, 285-301.e9.	7.0	68
28	Single-Cell Transcriptomics Meets Lineage Tracing. Cell Stem Cell, 2018, 23, 166-179.	11.1	306
29	A Caenorhabditis elegans protein with a PRDM9-like SET domain localizes to chromatin-associated foci and promotes spermatocyte gene expression, sperm production and fertility. PLoS Genetics, 2018, 14, e1007295.	3.5	14
30	Identity and dynamics of mammary stem cells during branching morphogenesis. Nature, 2017, 542, 313-317.	27.8	157
31	Celebrating 100 years of Developmental Biology at the Hubrecht Institute. Developmental Biology, 2017, 428, 259-260.	2.0	0
32	Circadian networks in human embryonic stem cellâ€derived cardiomyocytes. EMBO Reports, 2017, 18, 1199-1212.	4.5	61
33	Single-cell sequencing reveals dissociation-induced gene expression in tissue subpopulations. Nature Methods, 2017, 14, 935-936.	19.0	752
34	Tomo-Seq Identifies SOX9 as a Key Regulator of Cardiac Fibrosis During Ischemic Injury. Circulation, 2017, 136, 1396-1409.	1.6	81
35	A Single-Cell RNA Sequencing Study Reveals Cellular and Molecular Dynamics of the Hippocampal Neurogenic Niche. Cell Reports, 2017, 21, 3271-3284.	6.4	204
36	Patched Receptors Sense, Interpret, and Establish an Epidermal Hedgehog SignalingÂGradient. Journal of Investigative Dermatology, 2017, 137, 179-186.	0.7	11

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37	The Human Cell Atlas. ELife, 2017, 6, .	6.0	1,547
38	De Novo Prediction of Stem Cell Identity using Single-Cell Transcriptome Data. Cell Stem Cell, 2016, 19, 266-277.	11.1	484
39	Viral genome imaging of hepatitis C virus to probe heterogeneous viral infection and responses to antiviral therapies. Virology, 2016, 494, 236-247.	2.4	17
40	Reg4 <sup>+</sup> deep crypt secretory cells function as epithelial niche for Lgr5 <sup>+</sup> stem cells in colon. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, E5399-407.	7.1	232
41	A Single-Cell Transcriptome Atlas of the Human Pancreas. Cell Systems, 2016, 3, 385-394.e3.	6.2	966
42	Single-cell 5hmC sequencing reveals chromosome-wide cell-to-cell variability and enables lineage reconstruction. Nature Biotechnology, 2016, 34, 852-856.	17.5	144
43	Replacement of Lost Lgr5-Positive Stem Cells through Plasticity of Their Enterocyte-Lineage Daughters. Cell Stem Cell, 2016, 18, 203-213.	11.1	451
44	Spatially Resolved Genome-wide Transcriptional Profiling Identifies BMP Signaling as Essential Regulator of Zebrafish Cardiomyocyte Regeneration. Developmental Cell, 2016, 36, 36-49.	7.0	176
45	Genome-Wide RNA Tomography of the Hematopoietic Stem Cell Niche in Zebrafish Reveals Unexpected Functional Macrophage-Stem Cell Interactions. Blood, 2016, 128, 3882-3882.	1.4	0
46	DAZL regulates Tet1 translation in murine embryonic stem cells. EMBO Reports, 2015, 16, 791-802.	4.5	24
47	Differential Stoichiometry among Core Ribosomal Proteins. Cell Reports, 2015, 13, 865-873.	6.4	178
48	Single-Cell Transcriptomics Enters the Age of Mass Production. Molecular Cell, 2015, 58, 563-564.	9.7	17
49	Studying Lineage Decision-Making In Vitro: Emerging Concepts and Novel Tools. Annual Review of Cell and Developmental Biology, 2015, 31, 317-345.	9.4	41
50	Ascl2 Acts as an R-spondin/Wnt-Responsive Switch to Control Stemness in Intestinal Crypts. Cell Stem Cell, 2015, 16, 158-170.	11.1	217
51	Integrated genome and transcriptome sequencing of the same cell. Nature Biotechnology, 2015, 33, 285-289.	17.5	439
52	Licensing of Primordial Germ Cells for Gametogenesis Depends on Genital Ridge Signaling. PLoS Genetics, 2015, 11, e1005019.	3.5	48
53	Prospective Derivation of a Living Organoid Biobank of Colorectal Cancer Patients. Cell, 2015, 161, 933-945.	28.9	1,710
54	MicroRNA control of protein expression noise. Science, 2015, 348, 128-132.	12.6	337

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55	Design and Analysis of Single-Cell Sequencing Experiments. Cell, 2015, 163, 799-810.	28.9	441
56	Single-cell messenger RNA sequencing reveals rare intestinal cell types. Nature, 2015, 525, 251-255.	27.8	1,091
57	Genome-wide Maps of Nuclear Lamina Interactions in Single Human Cells. Cell, 2015, 163, 134-147.	28.9	399
58	Genome-wide RNA tomography analysis of the microenvironment promoting hematopoietic stem cell emergence in the embryo aorta. Experimental Hematology, 2015, 43, S104.	0.4	0
59	Spatially resolved transcriptomics and beyond. Nature Reviews Genetics, 2015, 16, 57-66.	16.3	406
60	A Gene Regulatory Program for Meiotic Prophase in the Fetal Ovary. PLoS Genetics, 2015, 11, e1005531.	3.5	93
61	Cell Intrinsic Modulation of Wnt Signaling Controls Neuroblast Migration in C.Âelegans. Developmental Cell, 2014, 31, 188-201.	7.0	36
62	A Predictive Model of Bifunctional Transcription Factor Signaling during Embryonic Tissue Patterning. Developmental Cell, 2014, 31, 448-460.	7.0	31
63	Global discovery of erythroid long noncoding RNAs reveals novel regulators of red cell maturation. Blood, 2014, 123, 570-581.	1.4	181
64	Inference of Tumor Evolution during Chemotherapy by Computational Modeling and In Situ Analysis of Genetic and Phenotypic Cellular Diversity. Cell Reports, 2014, 6, 514-527.	6.4	239
65	Transcriptional profiling of cells sorted by RNA abundance. Nature Methods, 2014, 11, 549-551.	19.0	34
66	Every Cell Is Special: Genome-wide Studies Add a New Dimension to Single-Cell Biology. Cell, 2014, 157, 8-11.	28.9	177
67	Genetic and Phenotypic Diversity in Breast Tumor Metastases. Cancer Research, 2014, 74, 1338-1348.	0.9	161
68	Genome-wide RNA Tomography in the Zebrafish Embryo. Cell, 2014, 159, 662-675.	28.9	248
69	Validation of noise models for single-cell transcriptomics. Nature Methods, 2014, 11, 637-640.	19.0	685
70	Constant Growth Rate Can Be Supported by Decreasing Energy Flux and Increasing Aerobic Glycolysis. Cell Reports, 2014, 7, 705-714.	6.4	85
71	Allele-specific detection of single mRNA molecules in situ. Nature Methods, 2013, 10, 869-871.	19.0	64
72	Single-molecule mRNA detection and counting in mammalian tissue. Nature Protocols, 2013, 8, 1743-1758.	12.0	187

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73	Robustness and Epistasis in the C.Âelegans Vulval Signaling Network Revealed by Pathway Dosage Modulation. Developmental Cell, 2013, 24, 64-75.	7.0	77
74	Feedback Control of Gene Expression Variability in the Caenorhabditis elegans Wnt Pathway. Cell, 2013, 155, 869-880.	28.9	75
75	Dampening of expression oscillations by synchronous regulation of a microRNA and its target. Nature Genetics, 2013, 45, 1337-1344.	21.4	96
76	Systematic Identification of Signal-Activated Stochastic Gene Regulation. Science, 2013, 339, 584-587.	12.6	250
77	A versatile genome-scale PCR-based pipeline for high-definition DNA FISH. Nature Methods, 2013, 10, 122-124.	19.0	66
78	Highly expressed loci are vulnerable to misleading ChIP localization of multiple unrelated proteins. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 18602-18607.	7.1	373
79	Stochastic Cytokine Expression Induces Mixed T Helper Cell States. PLoS Biology, 2013, 11, e1001618.	5.6	56
80	Deconvolving the roles of Wnt ligands and receptors in sensing and amplification. Molecular Systems Biology, 2013, 9, 631.	7.2	4
81	A physical sciences network characterization of non-tumorigenic and metastatic cells. Scientific Reports, 2013, 3, 1449.	3.3	146
82	A Critical Role for the Wnt Effector Tcf4 in Adult Intestinal Homeostatic Self-Renewal. Molecular and Cellular Biology, 2012, 32, 1918-1927.	2.3	216
83	Neural-specific Sox2 input and differential Cli-binding affinity provide context and positional information in Shh-directed neural patterning. Genes and Development, 2012, 26, 2802-2816.	5.9	158
84	The Lgr5 intestinal stem cell signature: robust expression of proposed quiescent â€~+4' cell markers. EMBO Journal, 2012, 31, 3079-3091.	7.8	634
85	Transcription of Two Long Noncoding RNAs Mediates Mating-Type Control of Gametogenesis in Budding Yeast. Cell, 2012, 150, 1170-1181.	28.9	235
86	Single-Cell Expression Analyses during Cellular Reprogramming Reveal an Early Stochastic and a Late Hierarchic Phase. Cell, 2012, 150, 1209-1222.	28.9	769
87	Dll1+ secretory progenitor cells revert to stem cells upon crypt damage. Nature Cell Biology, 2012, 14, 1099-1104.	10.3	647
88	Single-Cell Analysis Reveals that Noncoding RNAs Contribute to Clonal Heterogeneity by Modulating Transcription Factor Recruitment. Molecular Cell, 2012, 45, 470-482.	9.7	100
89	When Noisy Neighbors Are a Blessing: Analysis of Gene Expression Noise Identifies Coregulated Genes. Molecular Cell, 2012, 45, 437-438.	9.7	4
90	How to Regulate a Gene: To Repress or to Activate?. Molecular Cell, 2012, 46, 551-552.	9.7	0

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91	Optimality in the Development of Intestinal Crypts. Cell, 2012, 148, 608-619.	28.9	142
92	Slug and Sox9 Cooperatively Determine the Mammary Stem Cell State. Cell, 2012, 148, 1015-1028.	28.9	830
93	Identifying the Stem Cell of the Intestinal Crypt: Strategies and Pitfalls. Cell Stem Cell, 2012, 11, 452-460.	11.1	278
94	Using Gene Expression Noise to Understand Gene Regulation. Science, 2012, 336, 183-187.	12.6	685
95	The thrombospondin repeat containing protein MIG-21 controls a left–right asymmetric Wnt signaling response in migrating C. elegans neuroblasts. Developmental Biology, 2012, 361, 338-348.	2.0	33
96	MicroRNAs can generate thresholds in target gene expression. Nature Genetics, 2011, 43, 854-859.	21.4	568
97	Cellular Decision Making and Biological Noise: From Microbes to Mammals. Cell, 2011, 144, 910-925.	28.9	944
98	Validating transcripts with probes and imaging technology. Nature Methods, 2011, 8, S12-S19.	19.0	199
99	RNA sequencing reveals two major classes of gene expression levels in metazoan cells. Molecular Systems Biology, 2011, 7, 497.	7.2	265
100	Genes methylated by DNA methyltransferase 3b are similar in mouse intestine and human colon cancer. Journal of Clinical Investigation, 2011, 121, 1748-1752.	8.2	64
101	<i>Caenorhabditis elegans aristaless/Arx</i> gene <i>alr-1</i> restricts variable gene expression. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 4063-4068.	7.1	40
102	A Novel Sperm-Delivered Toxin Causes Late-Stage Embryo Lethality and Transmission Ratio Distortion in C. elegans. PLoS Biology, 2011, 9, e1001115.	5.6	158
103	The Caenorhabditis elegans Synthetic Multivulva Genes Prevent Ras Pathway Activation by Tightly Repressing Global Ectopic Expression of lin-3 EGF. PLoS Genetics, 2011, 7, e1002418.	3.5	38
104	Transcript counting in single cells reveals dynamics of rDNA transcription. Molecular Systems Biology, 2010, 6, 358.	7.2	45
105	Variability in gene expression underlies incomplete penetrance. Nature, 2010, 463, 913-918.	27.8	607
106	Altruistic defence. Nature, 2010, 467, 34-35.	27.8	10
107	A General Mechanism for Network-Dosage Compensation in Gene Circuits. Science, 2010, 329, 1656-1660.	12.6	87
108	Circadian Gating of the Cell Cycle Revealed in Single Cyanobacterial Cells. Science, 2010, 327, 1522-1526.	12.6	152

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109	Imaging Single mRNA Molecules in Yeast. Methods in Enzymology, 2010, 470, 429-446.	1.0	23
110	Genome-wide Dissection of MicroRNA Functions and Cotargeting Networks Using Gene Set Signatures. Molecular Cell, 2010, 38, 140-153.	9.7	212
111	Coupling cellular oscillators—circadian and cell division cycles in cyanobacteria. Current Opinion in Genetics and Development, 2010, 20, 613-618.	3.3	14
112	Elevated ATPase Activity of KaiC Applies a Circadian Checkpoint on Cell Division in Synechococcus elongatus. Cell, 2010, 140, 529-539.	28.9	136
113	Repetitive sequence variation and dynamics in the ribosomal DNA array of Saccharomyces cerevisiae as revealed by whole-genome resequencing. Genome Research, 2009, 19, 626-635.	5.5	82
114	Population genomics of domestic and wild yeasts. Nature, 2009, 458, 337-341.	27.8	1,391
115	Snowdrift game dynamics and facultative cheating in yeast. Nature, 2009, 459, 253-256.	27.8	594
116	Direct cell reprogramming is a stochastic process amenable to acceleration. Nature, 2009, 462, 595-601.	27.8	936
117	Growth landscape formed by perception and import of glucose in yeast. Nature, 2009, 462, 875-879.	27.8	80
118	The yin and yang of nature. Nature, 2009, 457, 271-272.	27.8	29
119	Synthetic biology: understanding biological design from synthetic circuits. Nature Reviews Genetics, 2009, 10, 859-871.	16.3	201
120	Quantitative Time-Lapse Fluorescence Microscopy in Single Cells. Annual Review of Cell and Developmental Biology, 2009, 25, 301-327.	9.4	152
121	Single-Molecule Approaches to Stochastic Gene Expression. Annual Review of Biophysics, 2009, 38, 255-270.	10.0	317
122	Many human large intergenic noncoding RNAs associate with chromatin-modifying complexes and affect gene expression. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 11667-11672.	7.1	2,709
123	A Systems-Level Analysis of Perfect Adaptation in Yeast Osmoregulation. Cell, 2009, 138, 160-171.	28.9	336
124	Stochastic switching as a survival strategy in fluctuating environments. Nature Genetics, 2008, 40, 471-475.	21.4	789
125	Imaging individual mRNA molecules using multiple singly labeled probes. Nature Methods, 2008, 5, 877-879.	19.0	1,770
126	Nature, Nurture, or Chance: Stochastic Gene Expression and Its Consequences. Cell, 2008, 135, 216-226.	28.9	2,236

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127	The Frequency Dependence of Osmo-Adaptation in <i>Saccharomyces cerevisiae</i> . Science, 2008, 319, 482-484.	12.6	320
128	Necessary Noise. Science, 2007, 317, 463-464.	12.6	32
129	Heritable Stochastic Switching Revealed by Single-Cell Genealogy. PLoS Biology, 2007, 5, e239.	5.6	105
130	Stochastic gene expression: from single molecules to the proteome. Current Opinion in Genetics and Development, 2007, 17, 107-112.	3.3	156
131	MicroRNA-Mediated Feedback and Feedforward Loops Are Recurrent Network Motifs in Mammals. Molecular Cell, 2007, 26, 753-767.	9.7	673
132	A multistep epigenetic switch enables the stable inheritance of DNA methylation states. Nature Genetics, 2007, 39, 269-275.	21.4	98
133	Stochastic gene expression out-of-steady-state in the cyanobacterial circadian clock. Nature, 2007, 450, 1249-1252.	27.8	97
134	When It Comes to Decisions, Myeloid Progenitors Crave Positive Feedback. Cell, 2006, 126, 650-652.	28.9	14
135	Cellular asymmetry and individuality in directional sensing. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 11549-11554.	7.1	72
136	Predicting stochastic gene expression dynamics in single cells. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 7304-7309.	7.1	152
137	Contributions of low molecule number and chromosomal positioning to stochastic gene expression. Nature Genetics, 2005, 37, 937-944.	21.4	291
138	Enhancement of cellular memory by reducing stochastic transitions. Nature, 2005, 435, 228-232.	27.8	476
139	Noise Propagation in Gene Networks. Science, 2005, 307, 1965-1969.	12.6	746
140	A System of Counteracting Feedback Loops Regulates Cdc42p Activity during Spontaneous Cell Polarization. Developmental Cell, 2005, 9, 565-571.	7.0	131
141	Stochastic Gene Expression in Fluctuating Environments. Genetics, 2004, 167, 523-530.	2.9	492
142	Amplitude control of cell-cycle waves by nuclear import. Nature Cell Biology, 2004, 6, 451-457.	10.3	17
143	Multistability in the lactose utilization network of Escherichia coli. Nature, 2004, 427, 737-740.	27.8	932
144	Actin Polymerization: Forcing Flat Faces Forward. Current Biology, 2004, 14, R467-R469.	3.9	11

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145	Elastic Instability in Growing Yeast Colonies. Biophysical Journal, 2004, 86, 2740-2747.	0.5	28
146	Biomimetic Systems for Studying Actin-Based Motility. Current Biology, 2003, 13, R734-R744.	3.9	63
147	Motility of Escherichia coli cells in clusters formed by chemotactic aggregation. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 13259-13263.	7.1	138
148	Probing polymerization forces by using actin-propelled lipid vesicles. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 4521-4526.	7.1	176
149	Attenuation of Noise in Ultrasensitive Signaling Cascades. Biophysical Journal, 2002, 82, 2943-2950.	0.5	220
150	Regulation of noise in the expression of a single gene. Nature Genetics, 2002, 31, 69-73.	21.4	1,443
151	Cooperative symmetry-breaking by actin polymerization in a model for cell motility. Nature Cell Biology, 1999, 1, 493-499.	10.3	124
152	Magneto-electric Aharonov–Bohm effect in metal rings. Nature, 1998, 391, 768-770.	27.8	98
153	One-Dimensional Mott Insulator Formed by Quantum Vortices in Josephson Junction Arrays. Physical Review Letters, 1996, 76, 4947-4950.	7.8	83
154	Bloch vortices in one-dimensional Josephson junction arrays. European Physical Journal D, 1996, 46, 707-708.	0.4	4
155	One-Dimensional Localization of Quantum Vortices in Disordered Josephson Junction Arrays. Physical Review Letters, 1996, 77, 4257-4260.	7.8	30