

Simone Furini

List of Publications by Year in descending order

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Version: 2024-02-01

100
papers

2,492
citations

270111

25
h-index

299063

42
g-index

112
all docs

112
docs citations

112
times ranked

4270
citing authors

#	ARTICLE	IF	CITATIONS
1	Ion conduction mechanism as a fingerprint of potassium channels. <i>Biophysical Journal</i> , 2022, 121, 388a.	0.2	1
2	Common, low-frequency, rare, and ultra-rare coding variants contribute to COVID-19 severity. <i>Human Genetics</i> , 2022, 141, 147-173.	1.8	22
3	The polymorphism L412F in <i>TLR3</i> inhibits autophagy and is a marker of severe COVID-19 in males. <i>Autophagy</i> , 2022, 18, 1662-1672.	4.3	25
4	Rare variants in Toll-like receptor 7 results in functional impairment and downregulation of cytokine-mediated signaling in COVID-19 patients. <i>Genes and Immunity</i> , 2022, 23, 51-56.	2.2	41
5	Host genetic basis of COVID-19: from methodologies to genes. <i>European Journal of Human Genetics</i> , 2022, 30, 899-907.	1.4	13
6	Multitomic analysis reveals cell-type-specific molecular determinants of COVID-19 severity. <i>Cell Systems</i> , 2022, 13, 598-614.e6.	2.9	10
7	Carriers of ADAMTS13 Rare Variants Are at High Risk of Life-Threatening COVID-19. <i>Viruses</i> , 2022, 14, 1185.	1.5	1
8	Pathogen-sugar interactions revealed by universal saturation transfer analysis. <i>Science</i> , 2022, 377, .	6.0	24
9	Employing a systematic approach to biobanking and analyzing clinical and genetic data for advancing COVID-19 research. <i>European Journal of Human Genetics</i> , 2021, 29, 745-759.	1.4	35
10	Shorter androgen receptor polyQ alleles protect against life-threatening COVID-19 disease in European males. <i>EBioMedicine</i> , 2021, 65, 103246.	2.7	52
11	Association of Toll-like receptor 7 variants with life-threatening COVID-19 disease in males: findings from a nested case-control study. <i>ELife</i> , 2021, 10, .	2.8	145
12	Protective Role of a TMPRSS2 Variant on Severe COVID-19 Outcome in Young Males and Elderly Women. <i>Genes</i> , 2021, 12, 596.	1.0	39
13	Severe COVID-19 in Hospitalized Carriers of Single CFTR Pathogenic Variants. <i>Journal of Personalized Medicine</i> , 2021, 11, 558.	1.1	16
14	Expression and Role of Heparan Sulfated Proteoglycans in Pancreatic Cancer. <i>Frontiers in Oncology</i> , 2021, 11, 695858.	1.3	7
15	Ion Conduction Mechanism as a Fingerprint of Potassium Channels. <i>Journal of the American Chemical Society</i> , 2021, 143, 12181-12193.	6.6	14
16	Exome Sequencing in 200 Intellectual Disability/Autistic Patients: New Candidates and Atypical Presentations. <i>Brain Sciences</i> , 2021, 11, 936.	1.1	17
17	Proton Pump Inhibitors Directly Block hERG-Potassium Channel and Independently Increase the Risk of QTc Prolongation in a Large Cohort of US Veterans. <i>Circulation: Arrhythmia and Electrophysiology</i> , 2021, 14, e010042.	2.1	8
18	Safety and immunogenicity of ChAd63-KH vaccine in post-kala-azar dermal leishmaniasis patients in Sudan. <i>Molecular Therapy</i> , 2021, 29, 2366-2377.	3.7	29

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19	SELP Asp603Asn and severe thrombosis in COVID-19 males. <i>Journal of Hematology and Oncology</i> , 2021, 14, 123.	6.9	11
20	New Candidates for Autism/Intellectual Disability Identified by Whole-Exome Sequencing. <i>International Journal of Molecular Sciences</i> , 2021, 22, 13439.	1.8	23
21	New frontiers to cure Alport syndrome: COL4A3 and COL4A5 gene editing in podocyte-lineage cells. <i>European Journal of Human Genetics</i> , 2020, 28, 480-490.	1.4	22
22	Insights into the Mechanisms of K^{+} Permeation in K^{+} Channels from Computer Simulations. <i>Journal of Chemical Theory and Computation</i> , 2020, 16, 794-799.	2.3	6
23	Critical Assessment of Common Force Fields for Molecular Dynamics Simulations of Potassium Channels. <i>Journal of Chemical Theory and Computation</i> , 2020, 16, 7148-7159.	2.3	24
24	ACE2 gene variants may underlie interindividual variability and susceptibility to COVID-19 in the Italian population. <i>European Journal of Human Genetics</i> , 2020, 28, 1602-1614.	1.4	208
25	Conduction and Gating Properties of the TRAAK Channel from Molecular Dynamics Simulations with Different Force Fields. <i>Journal of Chemical Information and Modeling</i> , 2020, 60, 6532-6543.	2.5	12
26	High rate of HDR in gene editing of p.(Thr158Met) MECP2 mutational hotspot. <i>European Journal of Human Genetics</i> , 2020, 28, 1231-1242.	1.4	10
27	AAV-mediated FOXP1 gene editing in human Rett primary cells. <i>European Journal of Human Genetics</i> , 2020, 28, 1446-1458.	1.4	12
28	From Bivariate to Multivariate Analysis of Cytometric Data: Overview of Computational Methods and Their Application in Vaccination Studies. <i>Vaccines</i> , 2020, 8, 138.	2.1	13
29	Effect of anionic lipids on ion permeation through the KcsA K^{+} -channel. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 2020, 1862, 183406.	1.4	3
30	Clinical and molecular characterization of COVID-19 hospitalized patients. <i>PLoS ONE</i> , 2020, 15, e0242534.	1.1	25
31	Modulation of the potassium channel KcsA by anionic phospholipids: Role of arginines at the non-annular lipid binding sites. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 2019, 1861, 183029.	1.4	22
32	Identification via Numerical Computation of Transcriptional Determinants of a Cell Phenotype Decision Making. <i>Frontiers in Genetics</i> , 2019, 10, 575.	1.1	8
33	Non-collagen genes role in digenic Alport syndrome. <i>BMC Nephrology</i> , 2019, 20, 70.	0.8	16
34	Regulation of KcsA by Anionic Phospholipids. <i>Biophysical Journal</i> , 2019, 116, 221a.	0.2	0
35	Molecular Dynamics Simulations of Orai Reveal How the Third Transmembrane Segment Contributes to Hydration and Ca^{2+} Selectivity in Calcium Release-Activated Calcium Channels. <i>Journal of Physical Chemistry B</i> , 2018, 122, 4407-4417.	1.2	14
36	Burden-driven feedback control of gene expression. <i>Nature Methods</i> , 2018, 15, 387-393.	9.0	281

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37	iPSC-derived neurons profiling reveals GABAergic circuit disruption and acetylated α -tubulin defect which improves after iHDAC6 treatment in Rett syndrome. <i>Experimental Cell Research</i> , 2018, 368, 225-235.	1.2	36
38	Ion-triggered selectivity in bacterial sodium channels. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018, 115, 5450-5455.	3.3	24
39	Omic Approach in Non-smoker Female with Lung Squamous Cell Carcinoma Pinpoints to Germline Susceptibility and Personalized Medicine. <i>Cancer Research and Treatment</i> , 2018, 50, 356-365.	1.3	20
40	A structural bioinformatics investigation on protein-DNA complexes delineates their modes of interaction. <i>Molecular BioSystems</i> , 2017, 13, 1010-1017.	2.9	8
41	Combined ultrasound and exome sequencing approach recognizes Opitz G/BBB syndrome in two malformed fetuses. <i>Clinical Dysmorphology</i> , 2017, 26, 18-25.	0.1	3
42	Reliable measurement of E. coli single cell fluorescence distribution using a standard microscope set-up. <i>Journal of Biological Engineering</i> , 2017, 11, 8.	2.0	9
43	Potentially Treatable Disorder Diagnosed Post Mortem by Exome Analysis in a Boy with Respiratory Distress. <i>International Journal of Molecular Sciences</i> , 2016, 17, 306.	1.8	5
44	Phenotypic Variability in Synthetic Biology Applications: Dealing with Noise in Microbial Gene Expression. <i>Frontiers in Microbiology</i> , 2016, 7, 479.	1.5	20
45	Scoring systems in dermatology. , 2016, , .		2
46	Exome sequencing analysis in a pair of monozygotic twins re-evaluates the genetics behind their intellectual disability and reveals a CHD2 mutation. <i>Brain and Development</i> , 2016, 38, 590-596.	0.6	11
47	Exome sequencing coupled with mRNA analysis identifies NDUFA6 as a Leigh gene. <i>Molecular Genetics and Metabolism</i> , 2016, 119, 214-222.	0.5	21
48	Energetics of Ion Permeation in an Open-Activated TRPV1 Channel. <i>Biophysical Journal</i> , 2016, 111, 1214-1222.	0.2	21
49	Exploring the Dynamics of the TWIK-1 Channel. <i>Biophysical Journal</i> , 2016, 111, 775-784.	0.2	7
50	Voltage-Gated Sodium Channels. <i>Current Topics in Membranes</i> , 2016, 78, 183-214.	0.5	7
51	Computational studies of transport in ion channels using metadynamics. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 2016, 1858, 1733-1740.	1.4	31
52	Experimental measurements and mathematical modeling of biological noise arising from transcriptional and translational regulation of basic synthetic gene circuits. <i>Journal of Theoretical Biology</i> , 2016, 395, 153-160.	0.8	11
53	PACO: PArticle COunting Method To Enforce Concentrations in Dynamic Simulations. <i>Journal of Chemical Theory and Computation</i> , 2016, 12, 925-929.	2.3	9
54	Chapter 4. Non-atomistic Simulations of Ion Channels. <i>RSC Theoretical and Computational Chemistry Series</i> , 2016, , 107-136.	0.7	0

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55	Permeation and Dynamics of an Open-Activated TRPV1 Channel. <i>Biophysical Journal</i> , 2015, 108, 37a.	0.2	0
56	Conduction and Selectivity in Na ⁺ Channels Analyzed by Bias-Exchange Metadynamics Simulations. <i>Biophysical Journal</i> , 2015, 108, 490a.	0.2	1
57	Bias-Exchange Metadynamics Simulations: An Efficient Strategy for the Analysis of Conduction and Selectivity in Ion Channels. <i>Journal of Chemical Theory and Computation</i> , 2015, 11, 1896-1906.	2.3	43
58	Blocking the Passage: C ₆₀ Geometrically Clogs K ⁺ Channels. <i>ACS Nano</i> , 2015, 9, 4827-4834.	7.3	41
59	Combined action potential- and dynamic-clamp for accurate computational modelling of the cardiac IKr current. <i>Journal of Molecular and Cellular Cardiology</i> , 2015, 79, 187-194.	0.9	14
60	Permeation and Dynamics of an Open-Activated TRPV1 Channel. <i>Journal of Molecular Biology</i> , 2015, 427, 537-549.	2.0	39
61	A straightforward approach to designing a scoring system for predicting length-of-stay of cardiac surgery patients. <i>BMC Medical Informatics and Decision Making</i> , 2014, 14, 89.	1.5	9
62	DNA Recognition Process of the Lactose Repressor Protein Studied via Metadynamics and Umbrella Sampling Simulations. <i>Journal of Physical Chemistry B</i> , 2014, 118, 13059-13065.	1.2	7
63	Determinants of ligand selectivity in a cyclic nucleotide-regulated potassium channel. <i>Journal of General Physiology</i> , 2014, 144, 41-54.	0.9	7
64	A naïve approach for deriving scoring systems to support clinical decision making. <i>Journal of Evaluation in Clinical Practice</i> , 2014, 20, 1-6.	0.9	9
65	Three-Dimensional Brownian Dynamics Simulator for the Study of Ion Permeation through Membrane Pores. <i>Journal of Chemical Theory and Computation</i> , 2014, 10, 2911-2926.	2.3	33
66	Effects of the Protonation States of the EEEE Motif of a Bacterial Na ⁺ -Channel on Conduction and Pore Structure. <i>Biophysical Journal</i> , 2014, 106, 130a.	0.2	1
67	Oligogenic germline mutations identified in early non-smokers lung adenocarcinoma patients. <i>Lung Cancer</i> , 2014, 85, 168-174.	0.9	30
68	Effects of the Protonation State of the EEEE Motif of a Bacterial Na ⁺ -channel on Conduction and Pore Structure. <i>Biophysical Journal</i> , 2014, 106, 2175-2183.	0.2	27
69	On Conduction and Permeation in a Bacterial Sodium Channel. <i>Biophysical Journal</i> , 2013, 104, 135a.	0.2	0
70	K ⁺ and Na ⁺ Conduction in Selective and Nonselective Ion Channels Via Molecular Dynamics Simulations. <i>Biophysical Journal</i> , 2013, 105, 1737-1745.	0.2	38
71	DNA-recognition process described by MD simulations of the lactose repressor protein on a specific and a non-specific DNA sequence. <i>Nucleic Acids Research</i> , 2013, 41, 3963-3972.	6.5	49
72	Revealing the Complexity of a Monogenic Disease: Rett Syndrome Exome Sequencing. <i>PLoS ONE</i> , 2013, 8, e56599.	1.1	54

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73	On Conduction in a Bacterial Sodium Channel. PLoS Computational Biology, 2012, 8, e1002476.	1.5	79
74	Nonselective Conduction in a Mutated NaK Channel with Three Cation-Binding Sites. Biophysical Journal, 2012, 103, 2106-2114.	0.2	17
75	A Synthetic Post-transcriptional Controller To Explore the Modular Design of Gene Circuits. ACS Synthetic Biology, 2012, 1, 163-171.	1.9	17
76	Brownian Dynamics Simulation of Calcium Channels. Biophysical Journal, 2012, 102, 173a.	0.2	1
77	Molecular Dynamics Simulations of the TrkH Membrane Protein. Biochemistry, 2012, 51, 1559-1565.	1.2	24
78	Brownian dynamics simulation of ion channels embedded in silicon membranes for sensor applications. , 2011, , .		0
79	On Conduction and Gating in K ⁺ -Channels. Biophysical Journal, 2011, 100, 579a.	0.2	0
80	A novel Brownian-Dynamics Algorithm for the Simulation of Ion Conduction Through Membrane Pores. Biophysical Journal, 2011, 100, 158a.	0.2	1
81	Gating at the Selectivity Filter of Ion Channels that Conduct Na ⁺ and K ⁺ Ions. Biophysical Journal, 2011, 101, 1623-1631.	0.2	19
82	Selectivity and Permeation of Alkali Metal Ions in K ⁺ -channels. Journal of Molecular Biology, 2011, 409, 867-878.	2.0	30
83	On ionic conduction in potassium channels. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, E128; author reply E129.	3.3	3
84	A Multiscale Model To Analyze the Sliding Movement of Repressor Proteins on DNA. Biophysical Journal, 2010, 98, 72a.	0.2	0
85	Computational Studies on Polarization Effects and Selectivity in K ⁺ Channels. Journal of Chemical Theory and Computation, 2010, 6, 3780-3792.	2.3	26
86	Insights into the Sliding Movement of the Lac Repressor Nonspecifically Bound to DNA. Journal of Physical Chemistry B, 2010, 114, 2238-2245.	1.2	27
87	Rational design of modular circuits for gene transcription: A test of the bottom-up approach. Journal of Biological Engineering, 2010, 4, 14.	2.0	11
88	A COMPUTATIONAL MODEL OF GENE EXPRESSION IN AN INDUCIBLE SYNTHETIC CIRCUIT. , 2009, , 409-420.		1
89	Examining Ion Channel Properties Using Free-Energy Methods. Methods in Enzymology, 2009, 466, 155-177.	0.4	15
90	Permeation of water through the KcsA K ⁺ channel. Proteins: Structure, Function and Bioinformatics, 2009, 74, 437-448.	1.5	28

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91	Atypical mechanism of conduction in potassium channels. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 16074-16077.	3.3	102
92	Dynamics, Energetics, and Selectivity of the Low-K ⁺ KcsA Channel Structure. Journal of Molecular Biology, 2009, 389, 637-645.	2.0	38
93	Particle-Based Simulation of Conductance of Solid-State Nanopores and Ion Channels. , 2009, , .		1
94	Model-Based Prediction of the $\hat{\pm}$ -Hemolysin Structure in the Hexameric State. Biophysical Journal, 2008, 95, 2265-2274.	0.2	24
95	The Role of Conformation in Ion Permeation in a K ⁺ Channel. Journal of the American Chemical Society, 2008, 130, 3389-3398.	6.6	32
96	Induction of NO synthase 2 in ventricular cardiomyocytes incubated with a conventional bicarbonate dialysis bath. Nephrology Dialysis Transplantation, 2008, 23, 2192-2197.	0.4	15
97	Role of the Intracellular Cavity in Potassium Channel Conductivity. Journal of Physical Chemistry B, 2007, 111, 13993-14000.	1.2	13
98	Different relevance of inactivation and F468 residue in the mechanisms of hEag1 channel blockage by astemizole, imipramine and dofetilide. FEBS Letters, 2006, 580, 5059-5066.	1.3	24
99	Application of the Poisson-Nernst-Planck Theory with Space-Dependent Diffusion Coefficients to KcsA. Biophysical Journal, 2006, 91, 3162-3169.	0.2	39
100	Shorter Androgen Receptor PolyQ Alleles Protect Against Life-Threatening COVID-19 Disease in Males. SSRN Electronic Journal, 0, , .	0.4	2