

Diego Krapf

List of Publications by Year in descending order

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Version: 2024-02-01

75
papers

4,287
citations

147801

31
h-index

123424

61
g-index

82
all docs

82
docs citations

82
times ranked

4019
citing authors

#	ARTICLE	IF	CITATIONS
1	Statistical test for anomalous diffusion based on empirical anomaly measure for Gaussian processes. Computational Statistics and Data Analysis, 2022, 168, 107401.	1.2	3
2	Scattering fingerprints of two-state dynamics. New Journal of Physics, 2022, 24, 023004.	2.9	9
3	Identifying heterogeneous diffusion states in the cytoplasm by a hidden Markov model. New Journal of Physics, 2021, 23, 053018.	2.9	25
4	Dynamics of long-term protein aggregation on low-fouling surfaces. Journal of Colloid and Interface Science, 2021, 589, 356-366.	9.4	8
5	Cdc42 localized in the CatSper signaling complex regulates cAMP-dependent pathways in mouse sperm. FASEB Journal, 2021, 35, e21723.	0.5	8
6	Leveraging large-deviation statistics to decipher the stochastic properties of measured trajectories. New Journal of Physics, 2021, 23, 013008.	2.9	15
7	Aging power spectrum of membrane protein transport and other subordinated random walks. Nature Communications, 2021, 12, 6162.	12.8	24
8	Objective comparison of methods to decode anomalous diffusion. Nature Communications, 2021, 12, 6253.	12.8	109
9	Protein adsorption measurements on low fouling and ultralow fouling surfaces: A critical comparison of surface characterization techniques. Acta Biomaterialia, 2020, 102, 169-180.	8.3	24
10	Elucidating the Origin of Heterogeneous Anomalous Diffusion in the Cytoplasm of Mammalian Cells. Physical Review Letters, 2020, 125, 058101.	7.8	98
11	Sperm Differentiation: The Role of Trafficking of Proteins. International Journal of Molecular Sciences, 2020, 21, 3702.	4.1	29
12	Anomalous protein kinetics on low-fouling surfaces. Physical Chemistry Chemical Physics, 2020, 22, 5264-5271.	2.8	4
13	Strange interfacial molecular dynamics. Physics Today, 2019, 72, 48-54.	0.3	47
14	Spectral Content of a Single Non-Brownian Trajectory. Physical Review X, 2019, 9, .	8.9	65
15	Temporal dependence of shifts in mu opioid receptor mobility at the cell surface after agonist binding observed by single-particle tracking. Scientific Reports, 2019, 9, 7297.	3.3	9
16	Identifying diffusive motions in single-particle trajectories on the plasma membrane via fractional time-series models. Physical Review E, 2019, 99, 012101.	2.1	11
17	Compartmentalization of the plasma membrane. Current Opinion in Cell Biology, 2018, 53, 15-21.	5.4	56
18	Disruption of protein kinase A localization induces acrosomal exocytosis in capacitated mouse sperm. Journal of Biological Chemistry, 2018, 293, 9435-9447.	3.4	32

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19	Power spectral density of a single Brownian trajectory: what one can and cannot learn from it. <i>New Journal of Physics</i> , 2018, 20, 023029.	2.9	62
20	Super-resolution imaging of live sperm reveals dynamic changes of the actin cytoskeleton during acrosomal exocytosis. <i>Journal of Cell Science</i> , 2018, 131, .	2.0	17
21	Nanostructured Surfaces That Mimic the Vascular Endothelial Glycocalyx Reduce Blood Protein Adsorption and Prevent Fibrin Network Formation. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 31892-31902.	8.0	35
22	The actin cytoskeleton of the mouse sperm flagellum is organized in a helical structure. <i>Journal of Cell Science</i> , 2018, 131, .	2.0	37
23	Steady-state reaction rate of diffusion-controlled reactions in sheets. <i>Journal of Chemical Physics</i> , 2018, 149, 064117.	3.0	10
24	Recurrence statistics for anomalous diffusion regime change detection. <i>Computational Statistics and Data Analysis</i> , 2018, 128, 380-394.	1.2	8
25	Cofilin Regulates Nuclear Architecture through a Myosin-II Dependent Mechanotransduction Module. <i>Scientific Reports</i> , 2017, 7, 40953.	3.3	44
26	Plasma Membrane is Compartmentalized by a Self-Similar Cortical Actin Meshwork. <i>Physical Review X</i> , 2017, 7, .	8.9	74
27	Ergodicity breaking on the neuronal surface emerges from random switching between diffusive states. <i>Scientific Reports</i> , 2017, 7, 5404.	3.3	71
28	Elucidating distinct ion channel populations on the surface of hippocampal neurons via single-particle tracking recurrence analysis. <i>Physical Review E</i> , 2017, 96, 062404.	2.1	30
29	Introduction to the Issue on Biophotonics. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , 2016, 22, 4-6.	2.9	2
30	The tyrosine kinase FER is responsible for the capacitation-associated increase in tyrosine phosphorylation in murine sperm. <i>Development (Cambridge)</i> , 2016, 143, 2325-33.	2.5	74
31	Strange kinetics of bulk-mediated diffusion on lipid bilayers. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 12633-12641.	2.8	31
32	Single-Molecule Imaging of Na v 1.6 on the Surface of Hippocampal Neurons Reveals Somatic Nanoclusters. <i>Biophysical Journal</i> , 2016, 111, 1235-1247.	0.5	45
33	Visualizing the Compartmentalization of the Surface of Mammalian Cells by Cortical Actin with Superresolution. <i>Biophysical Journal</i> , 2015, 108, 452a.	0.5	0
34	Does Cell Shape Determine Cell Fate?. <i>Biophysical Journal</i> , 2015, 108, 140a.	0.5	0
35	Superdiffusive motion of membrane-targeting C2 domains. <i>Scientific Reports</i> , 2015, 5, 17721.	3.3	41
36	Mechanisms Underlying Anomalous Diffusion in the Plasma Membrane. <i>Current Topics in Membranes</i> , 2015, 75, 167-207.	0.9	81

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37	Dynamic fluctuations in single-molecule biophysics experiments. <i>Physics of Life Reviews</i> , 2015, 13, 148-149.	2.8	1
38	Induction of stable ER-plasma-membrane junctions by Kv2.1 potassium channels. <i>Journal of Cell Science</i> , 2015, 128, 2096-2105.	2.0	100
39	Force Spectroscopy in the Bloodstream of Live Embryonic Zebrafish with Optical Tweezers. , 2014, , .		2
40	1/fnoise for intermittent quantum dots exhibits non-stationarity and critical exponents. <i>New Journal of Physics</i> , 2014, 16, 113054.	2.9	39
41	Induction of Endoplasmic Reticulum-Plasma Membrane Contacts is a Non-Conducting Function of the Kv2.1 Voltage-Gated Potassium Channel. <i>Biophysical Journal</i> , 2014, 106, 511a.	0.5	0
42	Single-Particle Tracking Palm of Nav1.6 in Hippocampal Neurons Demonstrates Unique Subcellular Diffusion Landscapes. <i>Biophysical Journal</i> , 2014, 106, 36a.	0.5	1
43	Single-Particle Tracking of Nav1.6 Demonstrates Different Mechanisms for Sodium Channel Anchoring within the AIS versus the Soma of Hippocampal Neurons. <i>Biophysical Journal</i> , 2013, 104, 138a.	0.5	0
44	Measuring the Binding Energy between Cargo and Forming Clathrin Coated Pits. <i>Biophysical Journal</i> , 2013, 104, 619a.	0.5	0
45	Endoplasmic Reticulum/Plasma Membrane Junctions Function as Membrane Protein Trafficking Hubs. <i>Biophysical Journal</i> , 2013, 104, 619a.	0.5	0
46	Kv2.1 Cell Surface Clusters Promote Maturation of Clathrin-Coated Pits. <i>Biophysical Journal</i> , 2013, 104, 619a.	0.5	0
47	Nonergodicity in nanoscale electrodes. <i>Physical Chemistry Chemical Physics</i> , 2013, 15, 459-465.	2.8	32
48	Plasma membrane domains enriched in cortical endoplasmic reticulum function as membrane protein trafficking hubs. <i>Molecular Biology of the Cell</i> , 2013, 24, 2703-2713.	2.1	33
49	Quantifying the dynamic interactions between a clathrin-coated pit and cargo molecules. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013, 110, E4591-600.	7.1	73
50	Kv2.1 cell surface clusters are insertion platforms for ion channel delivery to the plasma membrane. <i>Molecular Biology of the Cell</i> , 2012, 23, 2917-2929.	2.1	88
51	Obstructed diffusion propagator analysis for single-particle tracking. <i>Physical Review E</i> , 2012, 85, 041924.	2.1	28
52	Kv2.1 Cell Surface Clusters are Insertion and Retrieval Platforms For Kv Channel Trafficking at the Plasma Membrane. <i>Biophysical Journal</i> , 2012, 102, 105a-106a.	0.5	0
53	Size of Cell-Surface Kv2.1 Domains is Governed by Growth Fluctuations. <i>Biophysical Journal</i> , 2012, 103, 1727-1734.	0.5	9
54	Rapid Cell Surface Kv2.1 Recycling Observed by Single Molecule Tracking. <i>Biophysical Journal</i> , 2012, 102, 320a.	0.5	0

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55	Combining Super-Resolution Imaging and Single Particle Tracking in Living Cells to Probe Interactions Between Actin and Plasma Membrane Proteins. <i>Biophysical Journal</i> , 2012, 102, 386a.	0.5	0
56	Solid-State Nanopore Recognition and Measurement Using Shannon Entropy. <i>IEEE Photonics Journal</i> , 2011, 3, 337-343.	2.0	13
57	Ergodic and nonergodic processes coexist in the plasma membrane as observed by single-molecule tracking. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2011, 108, 6438-6443.	7.1	543
58	Anomalous diffusion of kv2.1 channels observed by single molecule tracking in live cells. , 2010, 2010, 3005-8.		3
59	Tracking Single Potassium Channels in Live Mammalian Cells. , 2009, , .		0
60	Control of Shape and Material Composition of Solid-State Nanopores. <i>Nano Letters</i> , 2009, 9, 479-484.	9.1	95
61	Fluorescence Immunoassay for the Detection of Latent Tuberculosis Antigens with Single Molecule Sensitivity. , 2009, , .		0
62	Mesoscopic Concentration Fluctuations in a Fluidic Nanocavity Detected by Redox Cycling. <i>Nano Letters</i> , 2007, 7, 384-388.	9.1	97
63	Fabrication and Characterization of Nanopore-Based Electrodes with Radii down to 2 nm. <i>Nano Letters</i> , 2006, 6, 105-109.	9.1	135
64	Experimental Observation of Nonlinear Ionic Transport at the Nanometer Scale. <i>Nano Letters</i> , 2006, 6, 2531-2535.	9.1	67
65	Salt Dependence of Ion Transport and DNA Translocation through Solid-State Nanopores. <i>Nano Letters</i> , 2006, 6, 89-95.	9.1	735
66	Direct force measurements on DNA in a solid-state nanopore. <i>Nature Physics</i> , 2006, 2, 473-477.	16.7	587
67	Resonant Coupling between Surface Vibrations and Electronic States in Silicon Nanocrystals at the Strong Confinement Regime. <i>Nano Letters</i> , 2005, 5, 2443-2447.	9.1	80
68	Formation of nanopores in a SiNâ•SiO2 membrane with an electron beam. <i>Applied Physics Letters</i> , 2005, 87, 113106.	3.3	106
69	Lithographically Fabricated Nanopore-Based Electrodes for Electrochemistry. <i>Analytical Chemistry</i> , 2005, 77, 1911-1915.	6.5	48
70	Nanopore Tomography of a Laser Focus. <i>Nano Letters</i> , 2005, 5, 2253-2256.	9.1	78
71	Intersublevel optical transitions in InAs nanocrystals probed by photoinduced absorption spectroscopy:â€fThe role of thermal activation. <i>Physical Review B</i> , 2004, 69, .	3.2	14
72	Infrared photo-induced absorption spectroscopy of porous silicon. <i>Physica Status Solidi A</i> , 2003, 197, 566-571.	1.7	10

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73	Infrared multispectral detection using Si/Si _x Ge _{1-x} quantum well infrared photodetectors. Applied Physics Letters, 2001, 78, 495-497.	3.3	24
74	Thermal relaxation processes in Si _{1-x} Ge _x /Si quantum wells studied by inter-subband and inter-valence band spectroscopy. Physica E: Low-Dimensional Systems and Nanostructures, 2000, 7, 255-258.	2.7	1
75	Thermal relaxation processes probed by intersubband and inter-valence-band transitions in Si/Si _{1-x} Ge _x multiple quantum wells. Applied Physics Letters, 1999, 75, 2232-2234.	3.3	2