Evangelos A Coutsias

List of Publications by Year
in descending order

51 papers	2,396 citations	331670 21 h-index	233421 45 g-index
53 all docs	53 docs citations	53 times ranked	3277 citing authors

#	Article	IF	Citations
1	Sub-angstrom accuracy in protein loop reconstruction by robotics-inspired conformational sampling. Nature Methods, 2009, 6, 551-552.	19.0	408
2	Accurate de novo design of hyperstable constrained peptides. Nature, 2016, 538, 329-335.	27.8	327
3	Using quaternions to calculate RMSD. Journal of Computational Chemistry, 2004, 25, 1849-1857.	3.3	296
4	A kinematic view of loop closure. Journal of Computational Chemistry, 2004, 25, 510-528.	3.3	265
5	The FALC-Loop web server for protein loop modeling. Nucleic Acids Research, 2011, 39, W210-W214.	14.5	101
6	Protein loop modeling by using fragment assembly and analytical loop closure. Proteins: Structure, Function and Bioinformatics, 2010, 78, 3428-3436.	2.6	90
7	The flexibility in the proline ring couples to the protein backbone. Protein Science, 2005, 14, 1011-1018.	7.6	77
8	An efficient spectral method for ordinary differential equations with rational function coefficients. Mathematics of Computation, 1996, 65, 611-636.	2.1	69
9	Algorithmic dimensionality reduction for molecular structure analysis. Journal of Chemical Physics, 2008, 129, 064118.	3.0	61
10	Exhaustive Conformational Sampling of Complex Fused Ring Macrocycles Using Inverse Kinematics. Journal of Chemical Theory and Computation, 2016, 12, 4674-4687.	5.3	54
11	A human transcription factor in search mode. Nucleic Acids Research, 2016, 44, 63-74.	14.5	52
12	Topology of cyclo-octane energy landscape. Journal of Chemical Physics, 2010, 132, 234115.	3.0	51
13	Resultants and loop closure. International Journal of Quantum Chemistry, 2006, 106, 176-189.	2.0	49
14	Light Harvesting for Rapid and Selective Reactions: Click Chemistry with Strain-Loadable Alkenes. CheM, 2018, 4, 124-137.	11.7	47
15	Scaffold Topologies. 2. Analysis of Chemical Databases. Journal of Chemical Information and Modeling, 2008, 48, 1311-1324.	5.4	44
16	Scaffold Topologies. 1. Exhaustive Enumeration up to Eight Rings. Journal of Chemical Information and Modeling, 2008, 48, 1304-1310.	5.4	43
17	RMSD and Symmetry. Journal of Computational Chemistry, 2019, 40, 1496-1508.	3.3	37
18	Space-charge-limit instabilities in electron beams. Physical Review A, 1983, 27, 1535-1543.	2.5	36

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19	Fundamental interactions of vortical structures with boundary layers in two-dimensional flows. Physica D: Nonlinear Phenomena, 1991, 51, 482-497.	2.8	27
20	A moving boundary model of acrosomal elongation. Journal of Mathematical Biology, 1986, 23, 361-379.	1.9	22
21	Spectral methods in numerical plasma simulation. Physica Scripta, 1989, 40, 270-279.	2.5	22
22	Assessing Protein Loop Flexibility by Hierarchical Monte Carlo Sampling. Journal of Chemical Theory and Computation, 2011, 7, 1564-1574.	5.3	22
23	Long-time behavior of Ginzburg-Landau systems far from equilibrium. Physical Review B, 1981, 24, 2592-2602.	3.2	21
24	Disorder, renormalizability, theta functions and Cornu spirals. Physica D: Nonlinear Phenomena, 1987, 26, 295-310.	2.8	21
25	Stable oscillations in single species growth models with hereditary effects. Mathematical Biosciences, 1979, 44, 255-267.	1.9	17
26	Selective Inhibition of Initiator versus Executioner Caspases Using Small Peptides Containing Unnatural Amino Acids. ACS Chemical Biology, 2014, 9, 2194-2198.	3.4	16
27	Nonrelativistic Kapitza-Dirac scattering. Physical Review A, 1985, 31, 3155-3168.	2.5	15
28	A reduced-order partial differential equation model for the flow in a thermosyphon. Journal of Fluid Mechanics, 2005, 543, 203.	3.4	13
29	Rotational superposition and least squares: The SVD and quaternions approaches yield identical results. Reply to the preceding comment by G. Kneller. Journal of Computational Chemistry, 2005, 26, 1663-1665.	3.3	12
30	Periodic solutions of a singularly perturbed delay differential equation. Physica D: Nonlinear Phenomena, 2008, 237, 3307-3321.	2.8	11
31	On the comparison of energy sources: Feasibility of radio frequency and ambient light harvesting. Renewable Energy, 2015, 81, 804-807.	8.9	11
32	Iterative Assembly of Helical Proteins by Optimal Hydrophobic Packing. Structure, 2008, 16, 1257-1266.	3.3	10
33	Characterization of Biomolecular Helices and Their Complementarity Using Geometric Analysis. Journal of Chemical Information and Modeling, 2017, 57, 864-874.	5.4	9
34	Sampling and refinement protocols for template-based macrocycle docking: 2018 D3R Grand Challenge 4. Journal of Computer-Aided Molecular Design, 2020, 34, 179-189.	2.9	8
35	The aging of nuclei in a binary mixture. Physica D: Nonlinear Phenomena, 1984, 12, 295-302.	2.8	5
36	Spectral element modeling of semiconductor heterostructures. Mathematical and Computer Modelling, 2006, 43, 582-591.	2.0	5

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37	Caustics and virtual cathodes in electron beams. Journal of Plasma Physics, 1988, 40, 369-384.	2.1	4
38	Protein secondary structure motifs: A kinematic construction. Journal of Computational Chemistry, 2021, 42, 271-292.	3.3	4
39	Invertibility of current density from near-field electromagnetic data. Journal of Applied Physics, 2003, 94, 5307.	2.5	3
40	Delay-induced destabilization of entrainment of nerve impulses on ephaptically coupled nerve fibers. Physical Review E, 2009, 79, 011910.	2.1	3
41	Algorithmic Search for Flexibility Using Resultants of Polynomial Systems. , 2006, , 68-79.		2
42	Acoustic-wave nonlinearity in stimulated Brillouin scattering. Journal of the Optical Society of America B: Optical Physics, 1994, 11, 1367.	2.1	1
43	An accurate and efficient spectral method for studies of the dynamical properties of forced, circular shear layers. Applied Numerical Mathematics, 2000, 33, 175-181.	2.1	1
44	Constraint methods that accelerate free-energy simulations of biomolecules. Journal of Chemical Physics, 2015, 143, 243143.	3.0	1
45	Flexibility of Bricardâ€™s linkages and other structures via resultants and computer algebra. Mathematics and Computers in Simulation, 2016, 125, 152-167.	4.4	1
46	Laguerre-Intersection Method for Implicit Solvation. International Journal of Computational Geometry and Applications, 2018, 28, 1-38.	0.5	1
47	On Cornu Spirals. Disorder, Selfsimilarity, and Jacobiâ€™s $\hat{I}_3(\hat{I}\frac{1}{2},\hat{I}_{\shortmid})$. , 1987, , 139-152.		1
48	Research results on biomagnetic imaging of the lung tumors. , 2005, 5692, 1.		0
49	Tribute to Ken A. Dill. Journal of Physical Chemistry B, 2018, 122, 5261-5262.	2.6	0
50	Kinematic Reconstruction of Cyclic Peptides and Protein Backbones from Partial Data. Journal of Chemical Information and Modeling, 2021, 61, 4975-5000.	5.4	0
51	Bricard flexible octahedra and the canonical cyclohexane. ACM Communications in Computer Algebra, 2015, 49, 56-56.	0.4	0