

# Eric J Rawdon

## List of Publications by Year in descending order

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Version: 2024-02-01

41  
papers

1,215  
citations

394421

19  
h-index

377865

34  
g-index

43  
all docs

43  
docs citations

43  
times ranked

760  
citing authors

#	ARTICLE	IF	CITATIONS
1	Conservation of complex knotting and slipknotting patterns in proteins. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, E1715-23.	7.1	219
2	KnotProt: a database of proteins with knots and slipknots. Nucleic Acids Research, 2015, 43, D306-D314.	14.5	159
3	Effect of Knotting on the Shape of Polymers. Macromolecules, 2008, 41, 8281-8287.	4.8	97
4	KnotProt 2.0: a database of proteins with knots and other entangled structures. Nucleic Acids Research, 2019, 47, D367-D375.	14.5	70
5	Identifying knots in proteins. Biochemical Society Transactions, 2013, 41, 533-537.	3.4	65
6	Knot Tightening by Constrained Gradient Descent. Experimental Mathematics, 2011, 20, 57-90.	0.7	51
7	Bending modes of DNA directly addressed by cryo-electron microscopy of DNA minicircles. Nucleic Acids Research, 2009, 37, 2882-2893.	14.5	47
8	Knotting pathways in proteins. Biochemical Society Transactions, 2013, 41, 523-527.	3.4	40
9	LinkProt: a database collecting information about biological links. Nucleic Acids Research, 2017, 45, D243-D249.	14.5	38
10	How topoisomerase IV can efficiently unknot and decatenate negatively supercoiled DNA molecules without causing their torsional relaxation. Nucleic Acids Research, 2016, 44, 4528-4538.	14.5	33
11	Scaling Behavior and Equilibrium Lengths of Knotted Polymers. Macromolecules, 2008, 41, 4444-4451.	4.8	31
12	Energy, ropelength, and other physical aspects of equilateral knots. Journal of Computational Physics, 2003, 186, 426-456.	3.8	28
13	UNIVERSAL CHARACTERISTICS OF POLYGONAL KNOT PROBABILITIES. Series on Knots and Everything, 2005, , 247-274.	0.0	28
14	Total Curvature and Total Torsion of Knotted Polymers. Macromolecules, 2007, 40, 3860-3867.	4.8	26
15	Can Computers Discover Ideal Knots?. Experimental Mathematics, 2003, 12, 287-302.	0.7	23
16	APPROXIMATING SMOOTH THICKNESS. Journal of Knot Theory and Its Ramifications, 2000, 09, 113-145.	0.3	22
17	Knot localization in proteins. Biochemical Society Transactions, 2013, 41, 538-541.	3.4	21
18	Subknots in ideal knots, random knots and knotted proteins. Scientific Reports, 2015, 5, 8928.	3.3	20

#	ARTICLE	IF	CITATIONS
19	Approximating the Thickness of a Knot. <i>Series on Knots and Everything</i> , 1998, , 143-150.	0.0	19
20	Length of the tightest trefoil knot. <i>Physical Review E</i> , 2004, 70, 051810.	2.1	19
21	Effect of knotting on polymer shapes and their enveloping ellipsoids. <i>Journal of Chemical Physics</i> , 2009, 130, 165104.	3.0	16
22	Sedimentation of macroscopic rigid knots and its relation to gel electrophoretic mobility of DNA knots. <i>Scientific Reports</i> , 2013, 3, 1091.	3.3	14
23	Role of flexibility in entanglement. <i>Physical Review E</i> , 2004, 70, 011803.	2.1	13
24	POLYGONAL APPROXIMATION AND ENERGY OF SMOOTH KNOTS. <i>Journal of Knot Theory and Its Ramifications</i> , 2006, 15, 429-451.	0.3	12
25	Tight knot spectrum in QCD. <i>Physical Review D</i> , 2014, 89, .	4.7	11
26	Möbius energy of thick knots. <i>Topology and Its Applications</i> , 2002, 125, 97-109.	0.4	10
27	POLYGONAL KNOT SPACE NEAR ROPELENGTH-MINIMIZED KNOTS. <i>Journal of Knot Theory and Its Ramifications</i> , 2008, 17, 601-631.	0.3	10
28	Shapes of tight composite knots. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2012, 45, 225202.	2.1	9
29	Knot fertility and lineage. <i>Journal of Knot Theory and Its Ramifications</i> , 2017, 26, 1750093.	0.3	9
30	All Monofilament Knots Assume Sliding Conformation In Vivo. <i>Dermatologic Surgery</i> , 2013, 39, 729-733.	0.8	8
31	ERROR ANALYSIS OF THE MINIMUM DISTANCE ENERGY OF A POLYGONAL KNOT AND THE MÖBIUS ENERGY OF AN APPROXIMATING CURVE. <i>Journal of Knot Theory and Its Ramifications</i> , 2010, 19, 975-1000.	0.3	7
32	Symmetry-breaking in cumulative measures of shapes of polymer models. <i>Journal of Chemical Physics</i> , 2010, 133, 154113.	3.0	6
33	ROPELENGTH OF TIGHT POLYGONAL KNOTS. <i>Series on Knots and Everything</i> , 2005, , 293-321.	0.0	6
34	Link lengths and their growth powers. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2015, 48, 035202.	2.1	3
35	Knotting fingerprints resolve knot complexity and knotting pathways in ideal knots. <i>Journal of Physics Condensed Matter</i> , 2015, 27, 354112.	1.8	3
36	Total curvature and total torsion of knotted random polygons in confinement. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2018, 51, 154002.	2.1	3

#	ARTICLE	IF	CITATIONS
37	Relative Frequencies of Alternating and Nonalternating Prime Knots and Composite Knots in Random Knot Spaces. <i>Experimental Mathematics</i> , 2018, 27, 454-471.	0.7	2
38	Average crossing number and writhe of knotted random polygons in confinement. <i>Reactive and Functional Polymers</i> , 2018, 131, 430-444.	4.1	2
39	Knotting spectrum of polygonal knots in extreme confinement. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2021, 54, 235202.	2.1	1
40	The spectrum of tightly knotted flux tubes in QCD. <i>Journal of Physics: Conference Series</i> , 2014, 544, 012025.	0.4	0
41	Open knotting. , 2017, , 176-204.		0