

# Igor Podlubny

## List of Publications by Year in descending order

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Version: 2024-02-01

67  
papers

9,002  
citations

257450

24  
h-index

223800

46  
g-index

70  
all docs

70  
docs citations

70  
times ranked

4324  
citing authors

#	ARTICLE	IF	CITATIONS
1	Monte Carlo method for fractional-order differentiation. Fractional Calculus and Applied Analysis, 2022, 25, 346-361.	2.2	3
2	Monte Carlo method for fractional-order differentiation extended to higher orders. Fractional Calculus and Applied Analysis, 2022, 25, 841-857.	2.2	6
3	Porous Functions Toolbox for MATLAB. , 2020, , .		0
4	Fractional-order modeling of lithium-ion batteries using additive noise assisted modeling and correlative information criterion. Journal of Advanced Research, 2020, 25, 49-56.	9.5	33
5	Porous functions â€” II. Fractional Calculus and Applied Analysis, 2020, 23, 307-323.	2.2	1
6	Unified Software Interface for Numerical Evaluation of Integrals and Derivatives of Fractional Order. , 2020, , .		0
7	Anomalous diffusion modeling using ultracapacitors in domino ladder circuit. Microelectronics Journal, 2019, 84, 136-141.	2.0	4
8	Time-Fractional Diffusion-Wave Equation with Mass Absorption in a Sphere under Harmonic Impact. Mathematics, 2019, 7, 433.	2.2	16
9	Finite energy Lyapunov function candidate for fractional order general nonlinear systems. Communications in Nonlinear Science and Numerical Simulation, 2019, 78, 104886.	3.3	30
10	Porous functions. Fractional Calculus and Applied Analysis, 2019, 22, 1502-1516.	2.2	6
11	FCAA special issue â€” In memory of late professor Wen Chen (FCAAâ€”Volume 22â€”6â€”2019). Fractional Calculus and Applied Analysis, 2019, 22, 1437-1448.	2.2	1
12	A Special Issue in ISA Transactions â€” Fractional Order Signals, Systems, and Controls: Theory and Applicationâ€” ISA Transactions, 2018, 82, 1.	5.7	4
13	Responsive graphical user interface (ReGUI) and its implementation in MATLAB. , 2018, , .		1
14	FCAA special issue (FCAAâ€”volume 20â€”5â€”2017). Fractional Calculus and Applied Analysis, 2017, 20, 1053-1067.	2.2	2
15	Reply to â€” Comments on â€” Mittag-Leffler stability of fractional order nonlinear dynamic systemsâ€” <sup>TM</sup> [Automatica 45(8) (2009) 1965â€”1969]â€” Automatica, 2017, 75, 330.	5.0	2
16	Niels Henrik Abel and the birth of fractional calculus. Fractional Calculus and Applied Analysis, 2017, 20, 1068-1075.	2.2	39
17	Toolboxes and programs for fractional-order system identification, modeling, simulation, and control. , 2016, , .		8
18	On the Regional Controllability of the Sub-Diffusion Process with Caputo Fractional Derivative. Fractional Calculus and Applied Analysis, 2016, 19, 1262-1281.	2.2	21

#	ARTICLE	IF	CITATIONS
19	Is Our Universe Accelerating Dynamics Fractional Order?. , 2015, , .		0
20	Fractional Approach for Estimating Sap Velocity in Trees. Fractional Calculus and Applied Analysis, 2015, 18, 479-494.	2.2	1
21	Diffusion process modeling by using fractional-order models. Applied Mathematics and Computation, 2015, 257, 2-11.	2.2	130
22	Solitary travelling auto-waves in fractional reactionâ€“diffusion systems. Communications in Nonlinear Science and Numerical Simulation, 2015, 23, 378-387.	3.3	19
23	Fractional models for measuring sap velocities in trees. , 2014, , .		0
24	Recent advances in numerical methods for partial fractional differential equations. , 2014, , .		10
25	Modelling heat transfer in heterogeneous media using fractional calculus. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2013, 371, 20120146.	3.4	163
26	Experimental Evidence of Variable-Order Behavior of Ladders and Nested Ladders. IEEE Transactions on Control Systems Technology, 2013, 21, 459-466.	5.2	89
27	What Euler could further write, or the unnoticed â€œbig bangâ€“of the fractional calculus. Fractional Calculus and Applied Analysis, 2013, 16, 501-506.	2.2	7
28	Matrix approach to discrete fractional calculus III: non-equidistant grids, variable step length and distributed orders. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2013, 371, 20120153.	3.4	49
29	Identification of Parameters of a Half-Order System. IEEE Transactions on Signal Processing, 2012, 60, 5561-5566.	5.3	53
30	Modeling of the national economies in state-space: A fractional calculus approach. Economic Modelling, 2012, 29, 1322-1327.	3.8	80
31	Distributed-Order Dynamic Systems. Springer Briefs in Electrical and Computer Engineering, 2012, , .	0.5	107
32	Fitting of experimental data using Mittag-Leffler function. , 2012, , .		20
33	Data fitting using solutions of differential equations: Fractional-order model versus integer-order model. , 2012, , .		8
34	Numerical Solution of Differential Equations of Distributed Order. Springer Briefs in Electrical and Computer Engineering, 2012, , 59-74.	0.5	0
35	Noncommensurate Constant Orders as Special Cases of DOLTIS. Springer Briefs in Electrical and Computer Engineering, 2012, , 29-37.	0.5	0
36	Distributed-Order Filtering and Distributed-Order Optimal Damping. Springer Briefs in Electrical and Computer Engineering, 2012, , 39-58.	0.5	0

#	ARTICLE	IF	CITATIONS
37	Software application for GPS devices using Google Maps. , 2011, , .		3
38	Fractional order control model of steel casting process. , 2011, , .		5
39	Modeling Heat Transfer in Heterogeneous Media Using Fractional Calculus. , 2011, , .		9
40	On the fractional signals and systems. Signal Processing, 2011, 91, 350-371.	3.7	229
41	Discrete Fractional Calculus: Non-Equidistant Grids and Variable Step Length. , 2011, , .		2
42	Least squares or least circles?. Chance, 2010, 23, 38-42.	0.2	2
43	Stability of fractional-order nonlinear dynamic systems: Lyapunov direct method and generalized Mittag-Leffler stability. Computers and Mathematics With Applications, 2010, 59, 1810-1821.	2.7	1,277
44	Least Squares or Least Circles?. Chance, 2010, 23, 38-42.	0.2	9
45	Matrix Approach to Discretization of Ordinary and Partial Differential Equations of Arbitrary Real Order: The Matlab Toolbox. , 2009, , .		5
46	Matrix approach to discrete fractional calculus II: Partial fractional differential equations. Journal of Computational Physics, 2009, 228, 3137-3153.	3.8	368
47	Mittag-Leffler stability of fractional order nonlinear dynamic systems. Automatica, 2009, 45, 1965-1969.	5.0	1,330
48	Matrix approach to discretization of fractional derivatives and to solution of fractional differential equations and their systems. , 2009, , .		9
49	Adjoint Fractional Differential Expressions and Operators. , 2007, , 1385.		27
50	Robustness of Fractional-order Boundary Control of Time Fractional Wave Equations with Delayed Boundary Measurement Using the Simple Predictor. , 2007, , 543-552.		0
51	State space description of national economies: The V4 countries. Computational Statistics and Data Analysis, 2007, 52, 1223-1233.	1.2	23
52	Robust stability test of a class of linear time-invariant interval fractional-order system using Lyapunov inequality. Applied Mathematics and Computation, 2007, 187, 27-34.	2.2	169
53	Towards a better list of citation superstars: compiling a multidisciplinary list of highly cited researchers. Research Evaluation, 2006, 15, 154-162.	2.6	29
54	ROBUST STABILITY CHECKING OF A CLASS OF LINEAR INTERVAL FRACTIONAL ORDER SYSTEM USING LYAPUNOV INEQUALITY. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2006, 39, 89-94.	0.4	4

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55	Robust stability check of fractional order linear time invariant systems with interval uncertainties. Signal Processing, 2006, 86, 2611-2618.	3.7	180
56	Physical interpretation of initial conditions for fractional differential equations with Riemann-Liouville fractional derivatives. Rheologica Acta, 2006, 45, 765-771.	2.4	568
57	Comparison of scientific impact expressed by the number of citations in different fields of science. Scientometrics, 2005, 64, 95-99.	3.0	82
58	Robustness of Boundary Control of Fractional Wave Equations With Delayed Boundary Measurement Using Fractional Order Controller and the Smith Predictor. , 2005, , .		4
59	Continued Fraction Expansion Approaches to Discretizing Fractional Order Derivatives?an Expository Review. Nonlinear Dynamics, 2004, 38, 155-170.	5.2	287
60	Fractional Order Disturbance Observer for Robust Vibration Suppression. Nonlinear Dynamics, 2004, 38, 355-367.	5.2	70
61	A New Discretization Method for Fractional Order Differentiators via Continued Fraction Expansion. , 2003, , 761.		28
62	On Fractional Order Disturbance Observer. , 2003, , 617.		12
63	Modulatory influences of ventilatory disorders on electrical stability of the rat heart. Biomedicine and Pharmacotherapy, 2002, 56, 327-332.	5.6	4
64	Title is missing!. Nonlinear Dynamics, 2002, 29, 269-279.	5.2	207
65	Analogue Realizations of Fractional-Order Controllers. Nonlinear Dynamics, 2002, 29, 281-296.	5.2	484
66	Fractional-order systems and PI/sup /spl lambda//D/sup /spl mu//-controllers. IEEE Transactions on Automatic Control, 1999, 44, 208-214.	5.7	2,628
67	24H Rhythm of the Ventricular Fibrillation Threshold During Normal and Hypoventilation in Female Wistar Rats. Chronobiology International, 1997, 14, 363-370.	2.0	9