Metin Demiralp

List of Publications by Year
in descending order

92	606	623188	752256
papers	citations	14	20
		h-index	g-index

92	92	92	56
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Iterative Enhanced Multivariance Products Representation for Effective Compression of Hyperspectral Images. IEEE Transactions on Geoscience and Remote Sensing, 2021, 59, 9569-9584.	2.7	13
2	Solving ODEs by Obtaining Purely Second Degree Multinomials via Branch and Bound with Admissible Heuristic. Mathematics, 2019, 7, 367.	1.1	1
3	Probabilistic evolution theory for explicit autonomous ordinary differential equations: recursion of squarified telescope matrices and optimal space extension. Journal of Mathematical Chemistry, 2018, 56, 1826-1848.	0.7	3
4	Promenading in the enchanted realm of Kronecker powers: single monomial probabilistic evolution theory (PREVTH) in evolver dynamics. Journal of Mathematical Chemistry, 2018, 56, 2001-2023.	0.7	5
5	Tridiagonal folded kernel enhanced multivariance products representation (TFKEMPR). AIP Conference Proceedings, 2018, , .	0.3	0
6	A case study for single monomial probabilistic evolution theory (PREVTH). AIP Conference Proceedings, 2018, , .	0.3	0
7	Block tridiagonal matrix enhanced multivariance products representation (BTMEMPR). Journal of Mathematical Chemistry, 2018, 56, 747-769.	0.7	3
8	Using enchanted features of Constancy Adding Space Extension (CASE) to reduce the dimension of evolver dynamics: Single Monomial Probabilistic Evolution Theory. Journal of Mathematical Chemistry, 2018, 56, 2044-2068.	0.7	3
9	Tridiagonal Folmat Enhanced Multivariance Products Representation Based Hyperspectral Data Compression. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2018, 11, 3272-3278.	2.3	3
10	Influence of a simple pole on the convergence of separate node ascending derivatives expansion (SNADE) on a sequence of nodes alternating between 2 values. Mathematical Methods in the Applied Sciences, 2018, 41, 7333-7350.	1.2	2
11	Somehow emancipating Probabilistic Evolution Theory (PREVTH) from singularities via getting single monomial PREVTH. Journal of Mathematical Chemistry, 2018, 56, 2024-2043.	0.7	4
12	Tridiagonal folmat enhanced multivariance products representation (TFEMPR) under subspace supported rational transformations (SsSRT). AIP Conference Proceedings, 2017, , .	0.3	2
13	Zero interval limit perturbation expansion for the spectral entities of Hilbert-Schmidt operators combined with most dominant spectral component extraction: convergence and confirmative implementations. Journal of Mathematical Chemistry, 2017, 55, 1278-1300.	0.7	1
14	A self-consistent high dimensional modelling based decomposition approach for univariate linear integral operators: Tridiagonal Kernel Enhanced Multivariance Products Representation (TKEMPR). Journal of Computational and Applied Mathematics, 2017, 326, 99-115.	1.1	5
15	Probabilistic evolution theory for the solution of explicit autonomous ordinary differential equations: squarified telescope matrices. Journal of Mathematical Chemistry, 2017, 55, 175-194.	0.7	8
16	Weighted tridiagonal matrix enhanced multivariance products representation (WTMEMPR) for decomposition of multiway arrays: applications on certain chemical system data sets. Journal of Mathematical Chemistry, 2017, 55, 455-476.	0.7	4
17	Zero interval limit perturbation expansion for the spectral entities of Hilbert–Schmidt operators combined with most dominant spectral component extraction: formulation and certain technicalities. Journal of Mathematical Chemistry, 2017, 55, 1253-1277.	0.7	2
18	On Autonomy Imposition in Zero Interval Limit Perturbation Expansion for the Spectral Entities of Hilbert–Schmidt Integral Operators. Mathematics, 2017, 5, 2.	1.1	5

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19	Formulation of tridiagonal folmat enhanced multivariance products representation (TFEMPR). AIP Conference Proceedings, 2015, , .	0.3	6
20	An algebraic function operator expectation value based eigenstate determinations for quantum systems with one degree of freedom. AIP Conference Proceedings, 2015, , .	0.3	1
21	Bivariate enhanced multivariance products representation (EMPR) at zero volume limit via geometric separation. AIP Conference Proceedings, 2015, , .	0.3	5
22	Probabilistic evolution theory for ODE sets with second degree multinomial right hand side functions: Implementation. AIP Conference Proceedings, 2015, , .	0.3	3
23	Combined small scale enhanced multivariance product representation (CSSEMPR) for image reconstruction. AIP Conference Proceedings, 2015, , .	0.3	3
24	Majorant recursions to determine eigenstate bounds of a symmetric exponential quantum anharmonic oscillator. AIP Conference Proceedings, 2015, , .	0.3	0
25	Weight optimization in HDMR with perturbation expansion method. Journal of Mathematical Chemistry, 2015, 53, 2155-2171.	0.7	1
26	Tridiagonal kernel enhanced multivariance products representation (TKEMPR) for outer product sums: Arrowheading EMPR for kernel (AEMPRK). AIP Conference Proceedings, 2015, , .	0.3	8
27	Fluctuation removal around spectral and temporal constancy limits via use of an extended space expectation value weight function for singular quantum systems. AIP Conference Proceedings, 2015, , .	0.3	0
28	Separate node ascending derivatives expansion (SNADE) for univariate functions: Conceptuality and formulation. AIP Conference Proceedings, 2015, , .	0.3	3
29	Separate node ascending derivatives expansion (SNADE) for univariate functions: Polynomial recursions, remainder bounds and the convergence. AIP Conference Proceedings, 2015, , .	0.3	3
30	Weight Construction in Extended Space Expectation Values for Singular Quantum Systems at Spectral Structuring and Temporal Constancy Limit. , 2014, , .		0
31	Fine Tuning Points of Generating Function Construction in Integral Form for Linear Recursions. , 2014, , .		0
32	Constancy adding space extension for ODE sets with second degree multinomial right hand side functions. , 2014, , .		3
33	Reductive enhanced multivariance product representation for multi-way arrays. Journal of Mathematical Chemistry, 2014, 52, 2546-2558.	0.7	11
34	Probabilistic evolution approach to the expectation value dynamics of quantum mechanical operators, part II: the use of mathematical fluctuation theory. Journal of Mathematical Chemistry, 2014, 52, 2294-2315.	0.7	5
35	Probabilistic evolution approach for the solution of explicit autonomous ordinary differential equations. Part 1: Arbitrariness and equipartition theorem in Kronecker power series. Journal of Mathematical Chemistry, 2014, 52, 866-880.	0.7	17
36	Probabilistic evolution approach for the solution of explicit autonomous ordinary differential equations. Part 2: Kernel separability, space extension, and, series solution via telescopic matrices. Journal of Mathematical Chemistry, 2014, 52, 881-898.	0.7	18

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37	Probabilistic evolution approach to the expectation value dynamics of quantum mechanical operators, part I: integral representation of Kronecker power series and multivariate Hausdorff moment problems. Journal of Mathematical Chemistry, 2014, 52, 2161-2182.	0.7	5
38	Tridiagonal Kernel Enhanced Multivariance Products Representation (TKEMPR) for Univariate Integral Operator Kernels. , 2014, , .		12
39	A probabilistic evolution approach trilogy, part 1: quantum expectation value evolutions, block triangularity and conicality, truncation approximants and their convergence. Journal of Mathematical Chemistry, 2013, 51, 1170-1186.	0.7	20
40	A probabilistic evolution approach trilogy, part 2: spectral issues for block triangular evolution matrix, singularities, space extension. Journal of Mathematical Chemistry, 2013, 51, 1187-1197.	0.7	16
41	A probabilistic evolution approach trilogy, part 3: temporal variation of state variable expectation values from Liouville equation perspective. Journal of Mathematical Chemistry, 2013, 51, 1198-1210.	0.7	18
42	Bound Analysis Through HDMR for Multivariate Data Modelling - CMMSE. Mathematical Modelling and Algorithms, 2013, 12, 265-276.	0.5	1
43	A contemporary linear representation theory for ordinary differential equations: probabilistic evolutions and related approximants for unidimensional autonomous systems. Journal of Mathematical Chemistry, 2013, 51, 58-72.	0.7	17
44	Truncation approximants to probabilistic evolution of ordinary differential equations under initial conditions via bidiagonal evolution matrices: simple case. International Journal of Computer Mathematics, 2013, 90, 2326-2337.	1.0	1
45	Probabilistic evolution approach for initial value problems over Fourier basis set. , 2012, , .		0
46	Fundamental elements of vector enhanced multivariance product representation. , 2012, , .		3
47	Probabilistic evolutions in classical dynamics: Conicalization and block triangularization of Lennard-Jones systems. , 2012, , .		4
48	Fluctuation suppression to optimize initial data to increase the quality of truncation approximants in probabilistic evolution approach for ODEs: Basic philosophy. , 2012, , .		2
49	Various parallel and diversive aspects of the mathematical fluctuations theory with the related standing issues. , 2012, , .		1
50	Fluctuation free matrix representation based random data partitioning through HDMR. , 2012, , .		0
51	Hybrid HDMR method with an optimized hybridity parameter in multivariate function representation. Journal of Mathematical Chemistry, 2012, 50, 2223-2238.	0.7	2
52	A contemporary linear representation theory for ordinary differential equations: multilinear algebra in folded arrays (folarrs) perspective and its use in multidimensional case. Journal of Mathematical Chemistry, 2012, 51, 38.	0.7	12
53	Combined small scale high dimensional model representation. Journal of Mathematical Chemistry, 2012, 50, 2023-2042.	0.7	4
54	A probabilistic foundation for dynamical systems: theoretical background and mathematical formulation. Journal of Mathematical Chemistry, 2012, 50, 850-869.	0.7	22

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55	A probabilistic foundation for dynamical systems: phenomenological reasoning and principal characteristics of probabilistic evolution. Journal of Mathematical Chemistry, 2012, 50, 870-880.	0.7	21
56	Multivariate data modelling through Piecewise generalized HDMR method. Journal of Mathematical Chemistry, 2012, 50, 1711-1726.	0.7	3
57	Generalized Enhanced Multivariance Product Representation for Data Partitioning: Constancy Level. , 2011, , .		4
58	Quantum Optimal Control of Single Harmonic Oscillator under Quadratic Controls together with Linear Dipole Polarizability: A Fluctuation Free Expectation Value Dynamical Perspective. , 2011, , .		1
59	The fluctuationlessness approach to the numerical integration of functions with a single variable by integrating Taylor expansion with explicit remainder term. Journal of Mathematical Chemistry, 2011, 49, 393-406.	0.7	5
60	A fluctuation removal based univariate integration over prescribed nodes: certain important aspects of one node fluctuation free integration. Journal of Mathematical Chemistry, 2011, 49, 407-427.	0.7	2
61	A fluctuation removal based univariate integration over prescribed nodes. Journal of Mathematical Chemistry, 2011, 49, 428-443.	0.7	2
62	A high dimensional model representation based numerical method for solving ordinary differential equations. Journal of Mathematical Chemistry, 2011, 49, 687-710.	0.7	0
63	Fluctuation free multivariate integration based logarithmic HDMR in multivariate function representation. Journal of Mathematical Chemistry, 2011, 49, 894-909.	0.7	5
64	Constancy maximization based weight optimization in high dimensional model representation for multivariate functions. Journal of Mathematical Chemistry, 2011, 49, 1996-2012.	0.7	6
65	No fluctuation approximation in any desired precision for univariate function matrix representations. Journal of Mathematical Chemistry, 2010, 47, 99-110.	0.7	14
66	Numerical solution of ordinary differential equations by Fluctuationlessness theorem. Journal of Mathematical Chemistry, 2010, 47, 1323-1343.	0.7	16
67	The influence of the support functions on the quality of enhanced multivariance product representation. Journal of Mathematical Chemistry, 2010, 48, 827-840.	0.7	32
68	Multi Nodalset Fluctuation Free Approximation in Taylor Remainder's Evaluation. , 2010, , .		1
69	Multi Nodalset Fluctuation Free Integration in Taylor Remainder's Evaluation. , 2010, , .		1
70	A Fluctuation Analysis at the Classical Limit for the Expectation Dynamics of a Single Quartic Quantum Anharmonic Oscillator. , 2010, , .		2
71	A Hybridized Finite Taylor Formula by Fluctuation Free Remainder Term for a Multivariable Function Approximation. , 2009, , .		1
72	A new rational approximation technique based on transformational high dimensional model representation. Numerical Algorithms, 2009, 52, 385-407.	1.1	19

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73	Constancy maximization based weight optimization in high dimensional model representation. Numerical Algorithms, 2009, 52, 435-459.	1.1	19
74	Determination of the external field amplitude and deviation parameter through expectation value based quantum optimal control of multiharmonic oscillators under linear control agents. Journal of Mathematical Chemistry, 2009, 46, 834-852.	0.7	2
75	Bound analysis in univariately truncated Generalized High Dimensional Model Representation for random-data partitioning: Interval GHDMR. Applied Numerical Mathematics, 2009, 59, 1431-1448.	1.2	7
76	Evaluation of Multivariate Integrals via Fluctuationlessness Theorem and Taylor's Remainder. , 2009, , .		1
77	An Integration Free Universal Approximation Method Based on Orthogonal Polynomials. , 2008, , .		6
78	Evaluation of Univariate Integrals via Fluctuationlessness Theorem. , 2008, , .		6
79	A Hybridized Finite Taylor Formula by Fluctuation Free Remainder Term for Univariate Function Approximation. , 2008, , .		7
80	A factorized high dimensional model representation on the nodes of a finite hyperprismatic regular grid. Applied Mathematics and Computation, 2005, 164, 865-883.	1.4	59
81	An Exponential Matrix Product Based Representation for Generalized Hypergeometric Functions of TypepFp. Applied Numerical Analysis and Computational Mathematics, 2005, 2, 19-33.	0.6	0
82	A Factorized High Dimensional Model Representation on the Partitioned Random Discrete Data. Applied Numerical Analysis and Computational Mathematics, 2004, 1, 231-241.	0.6	27
83	Optimally Controlled Dynamics of One Dimensional Harmonic Oscillator: Linear Dipole Function and Quadratic Penalty. Applied Numerical Analysis and Computational Mathematics, 2004, 1, 242-250.	0.6	1
84	Weighted Eigenvalue Problem Approach To The Critical Value Determination Of Screened Coulomb Potential Systems. Applied Numerical Analysis and Computational Mathematics, 2004, 1, 251-259.	0.6	1
85	A Parametric Sensitivity Analysis for the Solution of Extrema Evaluation Problems via a Dimensionality Reducing Approximation Method. Applied Numerical Analysis and Computational Mathematics, 2004, 1, 260-269.	0.6	2
86	Optimal Control of One Dimensional Quantum Harmonic Oscillator Under an External Field With Quadratic Dipole Function and Penalty on Momentum: Construction of the Linearised Field Amplitude Integral Equation. Applied Numerical Analysis and Computational Mathematics, 2004, 1, 270-279.	0.6	1
87	High Dimensional Model Representation Approximation of an Evolution Operator with a First Order Partial Differential Operator Argument. Applied Numerical Analysis and Computational Mathematics, 2004, 1, 280-289.	0.6	5
88	Formulation of some gaussian integrals over via generating functions. International Journal of Computer Mathematics, 1994, 54, 239-248.	1.0	1
89	Lie algebraic factorization of multivariable evolution operators: Definition and the solution of the canonical problem. International Journal of Engineering Science, 1993, 31, 307-331.	2.7	14
90	Lie algebraic factorization of multivariable evolution operators: Convergence theorems for the canonical case. International Journal of Engineering Science, 1993, 31, 333-346.	2.7	9

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91	Factorization of certain evolution operators using lie algebra: Formulation of the method. Journal of Mathematical Chemistry, 1991, 6, 165-191.	0.7	8
92	Factorization of certain evolution operators using lie algebra: Convergence theorems. Journal of Mathematical Chemistry, 1991, 6, 193-204.	0.7	4