Shigeki Matsutani

List of Publications by Year
in descending order

40	317	840776 11	940533 16
papers	citations	h-index	g-index

40	40	40	83
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Reflectionless Quantum Wire. Journal of the Physical Society of Japan, 1991, 60, 3640-3644.	1.6	41
2	Wave-Particle Complementarity and Reciprocity of Gauss Sums on Talbot Effects. Foundations of Physics Letters, 2003, 16, 325-341.	0.6	25
3	Hyperelliptic solutions of KdV and KP equations: re-evaluation of Baker's study on hyperelliptic sigma functions. Journal of Physics A, 2001, 34, 4721-4732.	1.6	21
4	Physical relation between quantum mechanics and solitons on a thin elastic rod. Physical Review A, 1992, 46, 1144-1147.	2.5	20
5	Jacobi inversion on strata of the Jacobian of the C rs curve y r =f(x). Journal of the Mathematical Society of Japan, 2008, 60, .	0.4	20
6	Quantum field theory on curved low-dimensional space embedded in three-dimensional space. Physical Review A, 1993, 47, 686-689.	2.5	15
7	Statistical mechanics of elastica on a plane: origin of the MKdV hierarchy. Journal of Physics A, 1998, 31, 2705-2725.	1.6	12
8	IMMERSION ANOMALY OF DIRAC OPERATOR ON SURFACE IN â„3. Reviews in Mathematical Physics, 1999, 11, 171-186.	1.7	12
9	Statistical mechanics of non-stretching elastica in three-dimensional space. Journal of Geometry and Physics, 1999, 29, 243-259.	1.4	12
10	Hyperelliptic loop solitons with genus g: investigations of a quantized elastica. Journal of Geometry and Physics, 2002, 43, 146-162.	1.4	12
11	Path Integral Formulation of Curved Low Dimensional Space. Journal of the Physical Society of Japan, 1992, 61, 55-63.	1.6	11
12	On the physical relation between the Dirac equation and the generalized mKdV equation on a thin elastic rod. Physics Letters, Section A: General, Atomic and Solid State Physics, 1994, 189, 27-31.	2.1	11
13	A constant mean curvature surface and the Dirac operator. Journal of Physics A, 1997, 30, 4019-4029.	1.6	8
14	Berry Phase of Dirac Particle in Thin Rod. Journal of the Physical Society of Japan, 1992, 61, 3825-3826.	1.6	7
15	DIRAC OPERATOR ON A CONFORMAL SURFACE IMMERSED IN â„4: A WAY TO FURTHER GENERALIZED WEIERSTRASS EQUATION. Reviews in Mathematical Physics, 2000, 12, 431-444.	1.7	7
16	On the Moduli of a Quantized Elastica in â„™ and KdV Flows: Study of Hyperelliptic Curves as an Extension of Euler's Perspective of Elastica I. Reviews in Mathematical Physics, 2003, 15, 559-628.	1.7	7
17	A class of solutions of the dispersionless KP equation. Physics Letters, Section A: General, Atomic and Solid State Physics, 2009, 373, 3001-3004.	2.1	7
18	The Riemann constant for a non-symmetric Weierstrass semigroup. Archiv Der Mathematik, 2016, 107, 499-509.	0.5	7

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19	On density of state of quantized Willmore surface - a way to a quantized extrinsic string in. Journal of Physics A, 1998, 31, 3595-3606.	1.6	6
20	THE SIGMA FUNCTION FOR WEIERSTRASS SEMIGROUPS ã€ˆ3, 7, 8ã€‰ AND ã€ˆ6, 13, 14, 15, 16ã€‰. International Journal of Mathematics, 2013, 24, 1350085.	0.5	6
21	The $$mathrm {al}$$ al function of a cyclic trigonal curve of genus three. Collectanea Mathematica, 2015, 66, 311-349.	0.9	6
22	The sigma function for trigonal cyclic curves. Letters in Mathematical Physics, 2019, 109, 423-447.	1.1	6
23	Closed loop solitons and sigma functions: classical and quantized elasticas with genera one and two. Journal of Geometry and Physics, 2001, 39, 51-62.	1.4	5
24	Relations in a quantized elastica. Journal of Physics A: Mathematical and Theoretical, 2008, 41, 075201.	2.1	5
25	Jacobi inversion on strata of the Jacobian of the C_{rs} curve $y^r = f(x)$, II. Journal of the Mathematical Society of Japan, 2014, 66, .	0.4	5
26	Localized state of hard core chain and cyclotomic polynomial: hard core limit of diatomic Toda lattice. Physics Letters, Section A: General, Atomic and Solid State Physics, 1997, 231, 208-216.	2.1	4
27	New theory of diffusive and coherent nature of optical wave via a quantum walk. Annals of Physics, 2017, 383, 164-180.	2.8	4
28	On Time Development of a Quasi-Quantum Particle in Quartic Potential (x2-a2)2/2g. Reviews in Mathematical Physics, 1997, 09, 943-991.	1.7	3
29	The Lotka-Volterra equation over a finite ring â„¤/pNâ„¤. Journal of Physics A, 2001, 34, 10737-10744.	1.6	2
30	Sheaf-theoretic investigation of CIP-method. Applied Mathematics and Computation, 2010, 217, 568-579.	2.2	2
31	From Eulerâ€™s elastica to the mKdV hierarchy, through the Faber polynomials. Journal of Mathematical Physics, 2016, 57, 081519.	1.1	2
32	Generalized Weierstrass Relations and Frobenius Reciprocity. Mathematical Physics Analysis and Geometry, 2007, 9, 353-369.	1.0	1
33	Gauss Optics and Gauss Sum on an Optical Phenomena. Foundations of Physics, 2008, 38, 758-777.	1.3	1
34	On homogenized conductivity and fractal structure in a high contrast continuum percolation model. Applied Mathematical Modelling, 2015, 39, 7227-7243.	4.2	1
35	An algebraic description of screw dislocations in SC and BCC crystal lattices. Pacific Journal of Mathematics for Industry, 2018, 10, .	0.7	1
36	Trigonal Toda Lattice Equation. Journal of Nonlinear Mathematical Physics, 2020, 27, 697.	1.3	1

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37	An algebro-geometric model for the shape of supercoiled DNA. Physica D: Nonlinear Phenomena, 2022, 430, 133073.	2.8	1
38	A novel conductivity mechanism of highly disordered carbon systems based on an investigation of graph zeta function. Physics Letters, Section A: General, Atomic and Solid State Physics, 2017, 381, 3107-3111.	2.1	0
39	The partial differential coefficients for the second weighted Bartholdi zeta function of a graph. Discrete Mathematics, 2019, 342, 2647-2663.	0.7	0
40	A novel discrete investigation of screw dislocations in the BCC crystal lattice. Mathematics and Mechanics of Complex Systems, 2021, 9, 1-32.	0.9	0