Peter A Clarkson

List of Publications by Year in descending order

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| # | Article | IF | CITATIONS |
|----|--|-----|-----------|
| 1 | New similarity reductions of the Boussinesq equation. Journal of Mathematical Physics, 1989, 30, 2201-2213. | 1.1 | 868 |
| 2 | Symmetry reductions and exact solutions of a class of nonlinear heat equations. Physica D: Nonlinear Phenomena, 1994, 70, 250-288. | 2.8 | 230 |
| 3 | The nonclassical method is more general than the direct method for symmetry reductions. An example of the Fitzhugh-Nagumo equation. Physics Letters, Section A: General, Atomic and Solid State Physics, 1992, 164, 49-56. | 2.1 | 195 |
| 4 | Nonclassical symmetry reductions of the Boussinesq equation. Chaos, Solitons and Fractals, 1995, 5, 2261-2301. | 5.1 | 162 |
| 5 | Painleve analysis of the non-linear Schrodinger family of equations. Journal of Physics A, 1987, 20, 2003-2024. | 1.6 | 148 |
| 6 | Solitaryâ€Wave Interactions in Elastic Rods. Studies in Applied Mathematics, 1986, 75, 95-121. | 2.4 | 131 |
| 7 | On a shallow water wave equation. Nonlinearity, 1994, 7, 975-1000. | 1.4 | 121 |
| 8 | Rogue waves, rational solutions, the patterns of their zeros and integral relations. Journal of Physics A: Mathematical and Theoretical, 2010, 43, 122002. | 2.1 | 119 |
| 9 | New similarity solutions for the modified Boussinesq equation. Journal of Physics A, 1989, 22, 2355-2367. | 1.6 | 114 |
| 10 | Algorithms for the Nonclassical Method of Symmetry Reductions. SIAM Journal on Applied Mathematics, 1994, 54, 1693-1719. | 1.8 | 105 |
| 11 | The Painlevéâ€Kowalevski and Polyâ€Painlevé Tests for Integrability. Studies in Applied Mathematics, 1992, 86, 87-165. | 2.4 | 103 |
| 12 | Hodograph Transformations of Linearizable Partial Differential Equations. SIAM Journal on Applied Mathematics, 1989, 49, 1188-1209. | 1.8 | 88 |
| 13 | BĀæklund transformations for the second Painlevé hierarchy: a modified truncation approach. Inverse Problems, 1999, 15, 175-187. | 2.0 | 84 |
| 14 | Symmetry and the Chazy Equation. Journal of Differential Equations, 1996, 124, 225-246. | 2.2 | 83 |
| 15 | Exact solutions of the multidimensional derivative nonlinear Schrodinger equation for many-body systems of criticality. Journal of Physics A, 1990, 23, 4269-4288. | 1.6 | 79 |
| 16 | Painlevé equations—nonlinear special functions. Journal of Computational and Applied Mathematics, 2003, 153, 127-140. | 2.0 | 77 |
| 17 | Nonclassical symmetry reductions for the Kadomtsev-Petviashvili equation. Physica D: Nonlinear Phenomena, 1991, 49, 257-272. | 2.8 | 76 |
| 18 | Reductions of self-dual Yang-Mills fields and classical systems. Physical Review Letters, 1990, 65, 1085-1087 | 7.8 | 75 |

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|----|--|-----|-----------|
| 19 | The second Painlev equation, its hierarchy and associated special polynomials. Nonlinearity, 2003, 16, R1-R26. | 1.4 | 74 |
| 20 | B̾klund Transformations and Solution Hierarchies for the Fourth Painlev̩ Equation. Studies in Applied Mathematics, 1995, 95, 1-71. | 2.4 | 69 |
| 21 | Backlund Transformations and Solution Hierarchies for the Third Painleve Equation. Studies in Applied Mathematics, 1997, 98, 139-194. | 2.4 | 68 |
| 22 | New similarity reductions and Painleve analysis for the symmetric regularised long wave and modified Benjamin-Bona-Mahoney equations. Journal of Physics A, 1989, 22, 3821-3848. | 1.6 | 65 |
| 23 | Painlevé analysis of the damped, driven nonlinear Schrödinger equation. Proceedings of the Royal Society of Edinburgh Section A: Mathematics, 1988, 109, 109-126. | 1.2 | 62 |
| 24 | New exact solutions of the Boussinesq equation. European Journal of Applied Mathematics, 1990, 1, 279-300. | 2.9 | 62 |
| 25 | Dimensional reductions and exact solutions of a generalized nonlinear Schrodinger equation. Nonlinearity, 1992, 5, 453-472. | 1.4 | 61 |
| 26 | Rational solutions of a differential-difference KdV equation, the Toda equation and the discrete KdV equation. Journal of Physics A, 1995, 28, 5009-5016. | 1.6 | 58 |
| 27 | Multicomponent equations associated to non-isospectral scattering problems. Inverse Problems, 1997, 13, 1463-1476. | 2.0 | 58 |
| 28 | The fourth Painlevé equation and associated special polynomials. Journal of Mathematical Physics, 2003, 44, 5350-5374. | 1.1 | 58 |
| 29 | New similarity solutions of the unsteady incompressible boundary-layer equations. Quarterly Journal of Mechanics and Applied Mathematics, 2000, 53, 175-206. | 1.3 | 53 |
| 30 | Painlevé Analysis and the Complete Integrability of a Generalized Variable-Coefficient Kadomtsev-Petviashvili Equation. IMA Journal of Applied Mathematics, 1990, 44, 27-53. | 1.6 | 52 |
| 31 | Mutational screening of the Wilms's tumour gene, WT1, in males with genital abnormalities Journal of Medical Genetics, 1993, 30, 767-772. | 3.2 | 48 |
| 32 | The Painlevé property and a partial differential equation with an essential singularity. Physics Letters, Section A: General, Atomic and Solid State Physics, 1985, 109, 205-208. | 2.1 | 45 |
| 33 | Vortices and Polynomials. Studies in Applied Mathematics, 2009, 123, 37-62. | 2.4 | 45 |
| 34 | Similarity Reductions and Exact Solutions for the Two-Dimensional Incompressible Navier-Stokes Equations. Studies in Applied Mathematics, 1999, 103, 183-240. | 2.4 | 44 |
| 35 | The Relationship Between Semiclassical Laguerre Polynomials and the Fourth Painlevé Equation. Constructive Approximation, 2014, 39, 223-254. | 3.0 | 44 |
| 36 | Symmetry reductions and exact solutions of shallow water wave equations. Acta Applicandae Mathematicae, 1995, 39, 245-276. | 1.0 | 42 |

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|----|--|-----|-----------|
| 37 | Symmetries of a class of nonlinear third-order partial differential equations. Mathematical and Computer Modelling, 1997, 25, 195-212. | 2.0 | 40 |
| 38 | A connection formula for the second Painlevé transcendent. Archive for Rational Mechanics and Analysis, 1988, 103, 97-138. | 2.4 | 38 |
| 39 | Application of Uniform Asymptotics to the Second Painlevé Transcendent. Archive for Rational Mechanics and Analysis, 1998, 143, 241-271. | 2.4 | 38 |
| 40 | Freud's equations for orthogonal polynomials as discrete Painlev $	ilde{A}$ © equations. , 1999, , 228-244. | | 36 |
| 41 | Rational solutions of the Boussinesq equation and applications to rogue waves. Transactions of Mathematics and Its Applications, 2017, 1, . | 3.3 | 32 |
| 42 | Nonclassical symmetry reductions and exact solutions of the Zabolotskaya–Khokhlov equation. European Journal of Applied Mathematics, 1992, 3, 381-414. | 2.9 | 31 |
| 43 | Nonclassical symmetry reductions of the three-dimensional incompressible Navier-Stokes equations. Journal of Physics A, 1998, 31, 7965-7980. | 1.6 | 31 |
| 44 | The third Painlev equation and associated special polynomials. Journal of Physics A, 2003, 36, 9507-9532. | 1.6 | 31 |
| 45 | A Generalized Freud Weight. Studies in Applied Mathematics, 2016, 136, 288-320. | 2.4 | 29 |
| 46 | Remarks on the Yablonskii–Vorob'ev polynomials. Physics Letters, Section A: General, Atomic and Solid State Physics, 2003, 319, 137-144. | 2.1 | 28 |
| 47 | Numerical studies of the fourth Painlevé equation. IMA Journal of Applied Mathematics, 1993, 50, 167-193. | 1.6 | 27 |
| 48 | Nonclassical reductions of a 3+1-cubic nonlinear SchrĶdinger system. Computer Physics Communications, 1998, 115, 460-488. | 7.5 | 27 |
| 49 | Integral equations and exact solutions for the fourth Painlevé equation. Proceedings of the Royal Society A, 1992, 437, 1-24. | 0.9 | 26 |
| 50 | Symmetries and exact solutions for a 2 + 1-dimensional shallow water wave equation. Mathematics and Computers in Simulation, 1997, 43, 39-55. | 4.4 | 26 |
| 51 | Special Polynomials Associated with Rational Solutions of the Painlevé Equations and Applications to Soliton Equations. Computational Methods and Function Theory, 2006, 6, 329-401. | 1.5 | 26 |
| 52 | Integrability of Klein–Gordon Equations. SIAM Journal on Mathematical Analysis, 1986, 17, 798-802. | 1.9 | 25 |
| 53 | Applications of the Differential Algebra Packagediffgrob2to Classical Symmetries of Differential Equations. Journal of Symbolic Computation, 1997, 23, 517-533. | 0.8 | 25 |
| 54 | The classical, direct, and nonclassical methods for symmetry reductions of nonlinear partial differential equations. Methods and Applications of Analysis, 1997, 4, 173-195. | 0.5 | 25 |

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|----|--|-----|-----------|
| 55 | Special polynomials associated with rational solutions of the defocusing nonlinear Schr¶dinger equation and the fourth Painlevé equation. European Journal of Applied Mathematics, 2006, 17, 293-322. | 2.9 | 24 |
| 56 | Symmetry group analysis of the shallow water and semi-geostrophic equations. Quarterly Journal of Mechanics and Applied Mathematics, 2005, 59, 95-123. | 1.3 | 23 |
| 57 | Properties of generalized Freud polynomials. Journal of Approximation Theory, 2018, 225, 148-175. | 0.8 | 23 |
| 58 | Special polynomials associated with rational solutions of the fifth Painlev \tilde{A} © equation. Journal of Computational and Applied Mathematics, 2005, 178, 111-129. | 2.0 | 22 |
| 59 | RATIONAL SOLUTIONS OF THE BOUSSINESQ EQUATION. Analysis and Applications, 2008, 06, 349-369. | 2.2 | 22 |
| 60 | The Painlevé property, a modified Boussinesq equation and a modified Kadomtsev-Petviashvili equation. Physica D: Nonlinear Phenomena, 1986, 19, 447-450. | 2.8 | 21 |
| 61 | New symmetry reductions and exact solutions of the Davey–Stewartson system. I. Reductions to ordinary differential equations. Journal of Mathematical Physics, 1994, 35, 255-283. | 1.1 | 21 |
| 62 | Nonclassical symmetry reductions of nonlinear partial differential equations. Mathematical and Computer Modelling, 1993, 18, 45-68. | 2.0 | 19 |
| 63 | New integrable differential-difference systems. Journal of Physics A, 1997, 30, L669-L676. | 1.6 | 18 |
| 64 | The Symmetric Fourth Painlevé Hierarchy and Associated Special Polynomials. Studies in Applied Mathematics, 2008, 121, 157-188. | 2.4 | 18 |
| 65 | Recurrence coefficients for discrete orthonormal polynomials and the Painlev \tilde{A} © equations. Journal of Physics A: Mathematical and Theoretical, 2013, 46, 185205. | 2.1 | 18 |
| 66 | Symmetry Reductions, Exact Solutions, and Painlevé Analysis for a Generalized Boussinesq Equation. Journal of Mathematical Analysis and Applications, 1994, 186, 132-155. | 1.0 | 16 |
| 67 | Symmetry Reduction and Exact Solutions of Nonlinear Partial Differential Equations. , 1999, , 591-660. | | 16 |
| 68 | The Painlevé conjecture, the Painlevé property for partial differential equations and complete integrability. Physica D: Nonlinear Phenomena, 1986, 18, 209-210. | 2.8 | 15 |
| 69 | On Airy Solutions of the Second Painlev $	ilde{A}$ © Equation. Studies in Applied Mathematics, 2016, 137, 93-109. | 2.4 | 14 |
| 70 | Conservation Laws and Integral Relations for the Boussinesq Equation. Studies in Applied Mathematics, 2017, 139, 104-128. | 2.4 | 14 |
| 71 | New exact solutions of the discrete fourth Painleve´equation. Physics Letters, Section A: General, Atomic and Solid State Physics, 1994, 194, 358-370. | 2.1 | 13 |
| 72 | Ermakov-Painlevé II Reduction in Cold Plasma Physics. Application of a BÃ e klund Transformation. Journal of Nonlinear Mathematical Physics, 2018, 25, 247. | 1.3 | 13 |

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|----|--|-----|-----------|
| 73 | Cyclic Maya diagrams and rational solutions of higher order Painlevé systems. Studies in Applied Mathematics, 2020, 144, 357-385. | 2.4 | 13 |
| 74 | Symmetry reductions of a generalized, cylindrical nonlinear Schrodinger equation. Journal of Physics A, 1993, 26, 133-150. | 1.6 | 12 |
| 75 | Darboux transformations and the symmetric fourth Painlevé equation. Journal of Physics A, 2005, 38, 9751-9764. | 1.6 | 12 |
| 76 | Rational solutions of the classical BoussinesqÂsystem. Nonlinear Analysis: Real World Applications, 2009, 10, 3360-3371. | 1.7 | 11 |
| 77 | Unique positive solution for an alternative discrete Painlevé I equation. Journal of Difference Equations and Applications, 2016, 22, 656-675. | 1.1 | 11 |
| 78 | Remarks on the two-dimensional sine-Gordon equation and the Painlevï;½ tests. Letters in Mathematical Physics, 1985, 10, 297-299. | 1.1 | 10 |
| 79 | On the relation between the continuous and discrete Painlevé equations. Theoretical and Mathematical Physics(Russian Federation), 2000, 122, 1-16. | 0.9 | 10 |
| 80 | Symmetry Methods for Differential Equations. , 2016, , 173-196. | | 10 |
| 81 | Integral Equations and Connection Formulae for the Painlevé Equations. NATO ASI Series Series B: Physics, 1992, , 1-31. | 0.2 | 10 |
| 82 | Shallow Water Wave Systems. Studies in Applied Mathematics, 1998, 101, 389-432. | 2.4 | 9 |
| 83 | Hierarchies of Difference Equations and BĀ e klund Transformations. Journal of Nonlinear Mathematical Physics, 2003, 10, 13. | 1.3 | 9 |
| 84 | A connection between the maximum displacements of rogue waves and the dynamics of poles in the complex plane. Chaos, 2017, 27, 091103. | 2.5 | 9 |
| 85 | Application of the isomonodromy deformation method to the fourth Painlevé equation. Inverse Problems, 1997, 13, 421-439. | 2.0 | 8 |
| 86 | Symmetries of a Class of Nonlinear Fourth Order Partial Differential Equations. Journal of Nonlinear Mathematical Physics, 1999, 6, 66. | 1.3 | 8 |
| 87 | Solitons and symmetries. Journal of Engineering Mathematics, 1999, 36, 1-91. | 1.2 | 7 |
| 88 | On the Lax Pairs of the Symmetric Painlevé Equations. Studies in Applied Mathematics, 2006, 117, 299-319. | 2.4 | 7 |
| 89 | On integrable Ermakov–Painlevé IV systems. Journal of Mathematical Analysis and Applications, 2018, 462, 1225-1241. | 1.0 | 7 |
| 90 | Open Problems for Painlevé Equations. Symmetry, Integrability and Geometry: Methods and Applications (SIGMA), 0, , . | 0.5 | 7 |

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|-----|---|-----|-----------|
| 91 | The symmetry reductions of a turbulence model. Journal of Physics A, 2001, 34, 3751-3760. | 1.6 | 6 |
| 92 | A generalized sextic Freud weight. Integral Transforms and Special Functions, 2021, 32, 458-482. | 1.2 | 6 |
| 93 | Nonclassical Symmetry Reductions and Exact Solutions of Nonlinear Reaction-Diffusion Equations. , 1993, , 375-389. | | 6 |
| 94 | The discrete PainlevÃ \tilde{A} II equation and the classical special functions. , 1999, , 217-227. | | 5 |
| 95 | Generalised Airy polynomials. Journal of Physics A: Mathematical and Theoretical, 2021, 54, 185202. | 2.1 | 5 |
| 96 | Painlevé Analysis and Similarity Reductions for the Magma Equation. Symmetry, Integrability and Geometry: Methods and Applications (SIGMA), 2006, , . | 0.5 | 5 |
| 97 | BÃ e klund transformations and nonlinear superposition formulae of a differential-difference KdV equation. Journal of Physics A, 1998, 31, 1405-1414. | 1.6 | 4 |
| 98 | Rational Solutions of an Extended Lotka-Volterra Equation. Journal of Nonlinear Mathematical Physics, 2002, 9, 75. | 1.3 | 4 |
| 99 | Rational solutions to dPIV. , 1999, , 206-216. | | 3 |
| 100 | One hundred years of PVI, the Fuchsâ \in PainlevÃ \otimes equation. Journal of Physics A, 2006, 39, . | 1.6 | 3 |
| 101 | Rational Solutions and BAeklund Transformations for the Third Painlevé Equation. , 1993, , 341-352. | | 3 |
| 102 | Ermakov-Painlevé II Symmetry Reduction of a Korteweg Capillarity System. Symmetry, Integrability and Geometry: Methods and Applications (SIGMA), 0, , . | 0.5 | 3 |
| 103 | Hierarchies of exact solutions for the discrete third Painlev \tilde{A} © equation. Chaos, Solitons and Fractals, 2000, 11, 53-71. | 5.1 | 2 |
| 104 | Reductions of Self-Dual Yang-Mills Fields and Classical Systems. Physical Review Letters, 1990, 65, 2086-2086. | 7.8 | 1 |
| 105 | Painlevé Project on the web. Physics Today, 2010, 63, 10-11. | 0.3 | 1 |
| 106 | Symmetry Reductions and Exact Solutions for a Generalised Boussinesq Equation. , 1993, , 415-430. | | 1 |
| 107 | Nonclassical Symmetry Reductions of a Generalized Nonlinear SchrĶdinger Equation. Research Reports in Physics, 1991, , 246-254. | 0.0 | 1 |
| 108 | Symmetries of the Nonlinear Heat Equation. , 1993, , 155-171. | | 1 |

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| 109 | A note on solutions of PainlevÃ $^{\odot}$ II. Physics Letters, Section A: General, Atomic and Solid State Physics, 1982, 92, 425-426. | 2.1 | 0 |
| 110 | New Similarity Reductions of Boussinesq-Type Equations. , 1990, , 575-576. | | 0 |
| 111 | Painlevé Equations and Associated Polynomials. , 2005, , 123-163. | | 0 |
| 112 | Preface: Orthogonal polynomials, special functions, and applications. Studies in Applied Mathematics, 2018, 141, 421-423. | 2.4 | 0 |
| 113 | Examples of Nonclassical Similarity Reductions. Research Reports in Physics, 1990, , 42-45. | 0.0 | 0 |
| 114 | Symmetry Reductions and Exact Solutions of the Davey-Stewartson System. , 1993, , 395-404. | | 0 |