Robert CONTE. Curriculum vitae (in English, ci-après en français) May 20, 2020

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Affiliations

1. (2006–today) Associate research director, Centre de mathématiques et de leurs applications, École normale supérieure de Cachan, CNRS, Université Paris-Saclay,
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3. (2004–2022) (Associate external member) Centre de recherches mathématiques, Université de Montréal, Montréal, Canada.

4. (2006–2019) (Honorary professor) Department of Mathematics, The University of Hong Kong.

Education

1961. Baccalauréat de mathématiques élémentaires, Lyon.

1962. Baccalauréat de philosophie, Lyon.

1964–1966. École polytechnique, Paris.

1967. Diplôme d'études approfondies, Solid state physics, Université Paris XI Orsay.

June 1979. Ph D, mathematics, option theoretical mechanics, Université Paris VI. Jury: H. Cabannes (president), N. Boccara, G. Corcos, J.P. Guiraud, Y. Pomeau.

Successive employments

1967–2006. Physicist, Commissariat à l'énergie atomique, Saclay.

1976–1977 (15 months). University of California, Mechanical engineering, Berkeley, USA.

1980–1981 (9 months). Software developer, computer assisted teaching, IBM France, La Défense, France.

2006–present. Directeur de recherche associé, Centre de mathématiques et de leurs applications, École normale supérieure de Cachan, CNRS, Université Paris-Saclay,
61, avenue du Président Wilson, F–94235 Cachan, France.

Teaching experience

1968–1970. Techniques mathématiques de la physique, Faculté des sciences, Paris.

1968–1970. Mathematics, École militaire, Paris.

1968–1972. Preparation to "Agrégation de mathématiques", ACES, Paris.

1969–1976. Quantum mechanics, École supérieure d'optique, Orsay.

1990–1995. Mathematics (analysis, probability, etc), École supérieure de physique et chimie industrielle, Paris.

Various long courses in winter or summer schools, mainly on nonlinear differential equations. Les Houches (1989), Liège (1990), Cargèse (1996), Shanghai Jiaotong (2009), Orsay (2012–2018).

Supervizing experience

PhD full time (Labrunie, now professor, U de Nancy).

PhD part time: Johan Springael (VUB Brussels, now professor, Antwerp U, Belgium) Caroline Verhoeven (VUB Brussels), Gaetana Gambino (Università di Palermo), Wu Cheng-fa (The University of Hong Kong).

MSc: Anca Ignat (Iasi, Roumania), S. Gelgon (INSA Rouen), V. Kelsch (INSA Rouen), T. Roy (INSA Rouen).

Postdoc: Yee Tat-leung (HKUST, Hong Kong), Lin Runliang (Tsing-hua Beijing, now assistant professor, Tsing-hua U, Beijing), Zhao Jun-xiao (Academia sinica, Beijing, now assistant professor).

Editorial boards

International journal of mathematics physics C.

Journal of nonlinear mathematical physics.

Organization of scientific meetings.

21–30 March 1989. Director, NATO Advanced study institute *Partially integrable nonlinear evolution equations and their physical applications*, Les Houches, France.

3–22 June 1996. Director, CNRS summer school *The Painlevé property, one century later*, Cargèse, France.

21–25 August 2000. Co-organizer, *Symmetry and solutions*, Krasnoyarsk, Russia.

1–5 June 2004. Co-organizer, *Théories asymptotiques et équations de Painlevé*, Angers, France.

15–20 May 2006. Co-organizer, *Algebraic, analytic and geometric aspects of complex differential equations and their deformations. Painlevé hierarchies.* Kyoto, Japan.

2008–2013. Co-organizer, Annual one-week meeting of CMLA in Cargèse, France.

Research interests

Main: complex analysis, mathematical physics, statistical physics, hydrodynamics.

Others: computer algebra, system programming, Lyapunov exponents, group theory.

Current scientific interests: nonlinear differential equations, differential geometry, Painlevé analysis, exact solutions, finite difference equations, nonlinear optics, fluid mechanics.

Languages English (fluent), Italian (good), Chinese (Putonghua HSK III), German (notions).

Publications (list attached)

96 articles in refereed journals.

59 communications to scientific meetings.

3 books (editor), 3 books (monography).

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3. (2004–2022) Membre externe associé, Centre de recherches mathématiques, Université de Montréal, Montréal, Canada.

4. (2006–2019) Professeur honoraire, Department of Mathematics, The University of Hong Kong.

Éducation

1961. Baccalauréat de mathématiques élémentaires, Lyon.

1962. Baccalauréat de philosophie, Lyon.

1964–1966. École polytechnique, Paris.

1967. Diplôme d'études approfondies de physique du solide, Orsay.

Juin 1979. Doctorat d'État ès-sciences mathématiques, Paris VI. Jury : H. Cabannes (président), N. Boccara, G. Corcos, J.P. Guiraud, Y. Pomeau.

Emplois successifs

1967–2006. Commissariat à l'énergie atomique, physicien.

1976–1977 (15 mois). University of California, Mechanical engineering, Berkeley, USA.

1980–1981 (9 mois, détachement du CEA). Développement de logiciel d'enseignement assisté par ordinateur chez IBM, La Défense.

2006–ce jour. Directeur de recherche associé, Centre de mathématiques et de leurs applications, École normale supérieure de Cachan (CMLA, UMR 8536), Cachan, France.

Enseignement

1968–1970. Techniques mathématiques de la physique, Faculté des sciences, Paris.

1968–1970. Mathématiques, École militaire, Paris.

1968–1972. Préparation des candidats à l'agrégation de mathématiques, ACES, Paris.

1969–1976. Assistant, mécanique quantique, École supérieure d'optique, Orsay.

1990–1995. Tuteur, mathématiques, École supérieure de physique et chimie industrielle, Paris.

Divers longs cours dans des écoles d'hiver ou d'été, principalement sur les équations différentielles non-linéaires. Les Houches (1989), Liège (1990), Cargèse (1996), Shanghai Jiaotong (2009), Orsay (2012–2018).

Encadrement d'étudiants

Direction de thèse (Simon Labrunie, maintenant professeur, U de Nancy).

Direction partielle de thèse : Johan Springael (VUB Brussels, maintenant professeur, Université d'Anvers, Belgique), Caroline Verhoeven (VUB Brussels, maintenant chercheur, ULB), Gaetana Gambino (Università di Palermo, maintenant ricercatore, Palermo), Wu Cheng-fa (The University of Hong Kong, maintenant assistant professor, Shenzhen U).

Mémoire de maîtrise : Anca Ignat (Iasi, Roumanie), S. Gelgon (INSA Rouen), V. Kelsch (INSA Rouen), T. Roy (INSA Rouen).

Étudiants postdoctoraux : Yee Tat-leung (HKUST, Hong Kong, maintenant assistant professor, IEd Hong Kong), Lin Runliang (Tsinghua Beijing, maintenant assistant professor, Tsinghua U, Beijing), Zhao Jun-xiao (Academia sinica, Beijing, maintenant assistant professor, UCAS Beijing).

Comités de rédaction

International journal of mathematics physics C.

Journal of nonlinear mathematical physics.

Organisation de congrès scientifiques.

21–30 mars 1989. Directeur, Institut d'études avancées de l'OTAN, *Partially integrable nonlinear evolution equations and their physical applications*, Les Houches, France.

3–22 juin 1996. Directeur, École thématique du CNRS *The Painlevé property, one century later*, Cargèse, France.

21–25 août 2000. Co-organisateur, *Symmetry and solutions*, Krasnoyarsk, Russie.

1–5 juin 2004. Co-organisateur, *Théories asymptotiques et équations de Painlevé*, Angers, France.

15–20 mai 2006. Co-organisateur, *Aspects algébriques, analytiques et géometriques des équations différentielles complexes et leurs déformations. Hiérarchies de Painlevé*, Kyoto, Japon.

2008–2013. Co-organisateur, Réunion annuelle d'une semaine du CMLA à Cargèse, France.

Sujets de recherche

Principal : analyse complexe, physique mathématique, physique statistique, hydrodynamique.

Autres : calcul formel, programmation système, exposants de Lyapunov, théorie des groupes.

Centres d'intérêt actuels : équations différentielles non-linéaires, géométrie différentielle, analyse de Painlevé, solutions exactes, équations aux différences finies, optique non-linéaire, mécanique des fluides.

Langues Anglais (courant), italien (bon), chinois (mandarin HSK III), allemand (notions).

Publications (liste ci-après)

96 articles dans des revues avec comité de lecture.

59 communications à des congrès scientifiques.

3 livres (rédacteur), 3 livres (monographie).

Robert Conte, liste de publications depuis 1988
Liste complète/full list, voir/see `http://hkumath.hku.hk/~conte/`

Books and important contributions to books
Livres et contributions importantes à des livres

– R. Conte and N. Boccara (eds.), *Partially integrable evolution equations in physics*, NATO ASI series C-310 (Kluwer, Dordrecht, 1990).

– R. Conte, Singularities of differential equations and integrability, *Introduction to methods of complex analysis and geometry for classical mechanics and nonlinear waves*, 49–143, eds. D. Benest and C. Frœschlé (Éditions Frontières, Gif-sur-Yvette, 1994).

– J. Trân Thanh Vân, P. Bergé, R. Conte and M. Dubois (eds.), *Chaos and complexity*, 345 pages (Éditions Frontières, Gif-sur-Yvette, 1995).

– R. Conte (ed.), *The Painlevé property, one century later*, 810 pages, CRM series in mathematical physics (Springer, New York, 1999).

– R. Conte, The Painlevé approach to nonlinear ordinary differential equations, *The Painlevé property, one century later*, 77–180, ed. R. Conte, CRM series in mathematical physics (Springer, New York, 1999). Solv-int/9710020.

– R. Conte, Exact solutions of nonlinear partial differential equations by singularity analysis, *Direct and inverse methods in nonlinear evolution equations*, 1–83, ed. A. Greco, Lecture notes in physics **632** (Springer Verlag, Berlin, 2003). http://arXiv.org/abs/nlin.SI/0009024

– R. Conte and M. Musette, The Painlevé methods, *Classical and quantum nonlinear integrable systems: theory and application*, 39–63, ed. A. Kundu (IOP Publishing Ltd., Bristol, 2003). http://arXiv.org/abs/nlin.SI/0211048

– R. Conte and M. Musette, Solitary waves of nonlinear nonintegrable equations, *Dissipative solitons*, eds. N. Akhmediev and A. Ankiewicz, Lecture notes in physics **661** (2005) 373–406. http://arXiv.org/abs/nlin.PS/0407026

– R. Conte and M. Musette, *The Painlevé handbook* (Springer Verlag, Berlin, 2008).

– R. Conte and M. Musette, *The Painlevé handbook*, Russian translation (Regular and chaotic dynamics, Moscow, 2011). ISBN 978-5-93972-883-6 http://www.ozon.ru/context/detail/id/5914536/

– R. Conte and M. Musette, revised and enlarged edition (400 pages), *The Painlevé handbook* (Springer Verlag, New York, 2020 to appear).

Refereed journals, articles published or accepted since 1988
Revues avec comité de lecture, articles parus ou acceptés depuis 1988

[Pour les publications antérieures à 1988, voir `http://hkumath.hku.hk/~conte/`]

– R. Conte, Universal invariance properties of Painlevé analysis and Bäcklund transformation in nonlinear partial differential equations, Phys. Lett. A **134** (1988) 100–104.

– R. Conte, Invariant Painlevé analysis of partial differential equations, Phys. Lett. A **140** (1989) 383–390. doi:10.1016/0375-9601(89)90072-8.

– R. Conte and M. Musette, Painlevé analysis and Bäcklund transformation in the Kuramoto-Sivashinsky equation, J. Phys. A **22** (1989) 169–177.

– M. Musette and R. Conte, Algorithmic method for deriving Lax pairs from the invariant Painlevé analysis of nonlinear partial differential equations, J. Math. Phys. **32** (1991) 1450–1457.

– R. Conte and M. Musette, Link between solitary waves and projective Riccati equations, J. Phys. A **25** (1992) 5609–5623.

– Chen Zhi-xiong, R. Conte and Guo Ben-yu, Auto-Bäcklund transformation and analytic solutions in one-dimensional carrier flow equations, Acta Mathematica Sinica **9** (1993) 438–445.

– R. Conte, A. P. Fordy and A. Pickering, A perturbative Painlevé approach to nonlinear differential equations, Physica D **69** (1993) 33–58.

– R. Conte and M. Musette, Linearity inside nonlinearity: exact solutions to the complex Ginzburg-Landau equation, Physica D **69** (1993) 1–17.

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– R. Conte, M. Musette and A. Pickering, Factorization of the "classical Boussinesq" system, J. Phys. A **27** (1994) 2831–2836.

– A. Latifi, M. Musette and R. Conte, The Bianchi IX (mixmaster) cosmological model is not integrable, Phys. Letters A **194** (1994) 83–92.

– P. Marcq, H. Chaté and R. Conte, Exact solutions of the one-dimensional quintic complex Ginzburg-Landau equation, Physica D **73** (1994) 305–317.

– M. Musette and R. Conte, The two–singular manifold method, I. Modified KdV and sine-Gordon equations, J. Phys. A **27** (1994) 3895–3913.

– R. Conte, M. Musette and A. Pickering, The two–singular manifold method, II. Classical Boussinesq system, J. Phys. A **28** (1995) 179–185.

– A. Latifi, M. Musette and R. Conte, Nonintegrability of the Bianchi IX model, Physica D **87** (1995) 70–72.

– M. Musette et R. Conte, Non-Fuchsian extension to the Painlevé test, Phys. Lett. A **206** (1995) 340–346.

– R. Conte, The Painlevé property, one century later, Europhysics News **27** (1996) 49.

– R. Conte and M. Musette, A new method to test discrete Painlevé equations, Phys. Lett. A **223** (1996) 439–448.

– S. Labrunie and R. Conte, Discrete version of the Chazy class III equation, J. Phys. A **29** (1996) L499–L503.

– S. Labrunie and R. Conte, A geometrical method towards first integrals for dynamical systems, J. Math. Phys. **37** (1996) 6198–6206.

– M. Musette and R. Conte, Bäcklund transformation of partial differential equations from the Painlevé-Gambier classification, I. Kaup-Kupershmidt equation, J. Math. Phys. **39** (1998) 5617–5630.

– J. Springael, R. Conte and M. Musette, On exact solutions of the Bianchi IX cosmological model, Regular and chaotic dynamics **3** (1998) 3–8. Solv-int/9804008.

– R. Conte and M. Musette, Comment on *Exact periodic solutions of the complex Ginzburg-Landau equation* [J. Math. Phys. 40, 884 (1999)], J. Math. Phys. **40** (1999) 5283.

– R. Conte, M. Musette, and A. M. Grundland, Bäcklund transformation of partial differential equations from the Painlevé-Gambier classification, II. Tzitzéica equation, J. Math. Phys. **40** (1999) 2092–2106.

– R. Conte and M. Musette, Towards second order Lax pairs to discrete Painlevé equations of first degree, Chaos, solitons and fractals **11** (2000) 41–52. Solv-int/9803013.

– R. Conte and M. Musette, Analytic expressions of hydrothermal waves, Reports on mathematical physics **46** (2000) 77–88. nlin.SI/0009022

– R. Conte, Sur les transformations de Schlesinger de la sixième équation de Painlevé, C.R. Acad. Sc. (Paris) **332** (2001) 501–504. math.CA/0103165.

– R. Conte and M. Musette, Bäcklund transformations from Painlevé analysis, Glasgow Mathematical Journal **43A** (2001) 9–21. *Integrable systems: linear and nonlinear dynamics*, eds. C. Athorne, C. Gilson, and J. Nimmo,

– R. Conte and M. Musette, First degree birational transformations of the Painlevé equations and their contiguity relations, J. Phys. A **34** (2001) 10507–10522. nlin.SI/0110028.

– M. Musette, R. Conte, and C. Verhoeven, Bäcklund transformation and nonlinear superposition formula of the Kaup-Kupershmidt and Tzitzéica equations, *Bäcklund and Darboux transformations : the geometry of soliton theory*, eds. A. Coley, D. Levi, C. Rogers, and P. Winternitz, CRM Proceedings and Lecture Notes **29** (2001) 345–362. American Mathematical Society, Providence, R.I. AARMS-CRM workshop (Halifax, 5–9 June 1999). S99/071.

– R. Conte and M. Musette, A truncation for obtaining all the first degree birational transformations of the Painlevé transcendents, J. Nonlinear Math. Phys. **9** Supp. 1 (2002) 14–28. nlin.SI/0110031.

– R. Conte and M. Musette, New contiguity relation of the sixth Painlevé equation from a truncation, Physica D **161** (2002) 129–141. nlin.SI/0112007.

– C. Verhoeven, M. Musette and R. Conte, Integration of a generalized Hénon-Heiles Hamiltonian, J. Math. Phys. **43** (2002) 1906–1915. nlin.SI/0112030.

– Lin Runliang, R. Conte, and M. Musette, On the Lax pairs of the continuous and discrete sixth Painlevé equations, J. Nonlinear Mathematical Physics **10**, Supp. 2, 107–118 (2003). `http://www.sm.luth.se/~norbert/home_journal/10s2_9.pdf` and .ps

– M. Musette and R. Conte, Analytic solitary waves of nonintegrable equations, Physica D **181** (2003) 70–79. http://arXiv.org/abs/nlin.PS/0302051

– C. Verhoeven, M. Musette and R. Conte, General solution for Hamiltonians with extended cubic and quartic potentials, Theor. Math. Phys. **134**, 128–138 (2003). http://arXiv.org/abs/nlin.SI/0301011

– Yee T.-l., R. Conte, and M. Musette, Sur la "solution analytique générale" d'une équation différentielle chaotique du troisième ordre, 195–212, *From combinatorics to dynamical systems*, eds. F. Fauvet and C. Mitschi, IRMA lectures in mathematics and theoretical physics **3** (de Gruyter, Berlin, 2003). http://arXiv.org/abs/nlin.PS/0302056 Journées de calcul formel, Strasbourg, IRMA, 21–22 mars 2002.

– Yee T.-l. and R. Conte, Another integrable case in the Lorenz model, J. Phys. A **37** (2004) L113–L115. http://arXiv.org/abs/nlin.CD/0402033

– R. Conte and M.L. Gandarias, Symmetry reductions of a particular set of equations of associativity in twodimensional topological field theory, J. Phys. A **38** (2005) 1187–1196. http://arxiv.org/abs/math.AG/0412439

– R. Conte, M. Musette, and C. Verhoeven, Explicit integration of the Hénon-Heiles Hamiltonians, J. Nonlinear Mathematical Physics **12** Supp. 1 (2005) 212–227. http://arxiv.org/abs/nlin.SI/0412057

– R. Conte, M. Musette, and C. Verhoeven, Completeness of the cubic and quartic Hénon-Heiles Hamiltonians, Theor. Math. Phys. **144** (2005) 888–898. http://arxiv.org/abs/nlin.SI/0507011 http://dx.doi.org/10.1007/s11232-005-0115-9

– R. Conte, M. Musette, and C. Verhoeven, Hamiltonians with two degrees of freedom admitting a singlevalued general solution, Analysis in theory and applications **21** (2005) 188-200. http://arxiv.org/abs/nlin.SI/0507012

– Chow K.-w., R. Conte and Neil Xu, Analytic doubly periodic wave patterns for the integrable discrete nonlinear Schrödinger (Ablowitz-Ladik) model, Phys. Lett. A **349** (6) (2006) 422–429. http://arXiv.org/abs/nlin.PS/0509005 https://doi.org/10.1016/j.physleta.2005.09.053

– R. Conte, Integration of partially integrable equations, eds. G. Mulone, S. Rionero and T. Ruggeri (World Scientific, Singapore, 2006), 146–157.

– R. Conte and Chow K.-w., Periodic waves of a discrete higher order nonlinear Schrödinger equation, Commun. Theor. Phys. **46** (2006) 961–965.

– R. Conte, A. M. Grundland, and M. Musette, A reduction of the resonant three-wave interaction to the generic sixth Painlevé equation, J. Phys. A: Math. Gen. **39** (2006) 12115-12127. Special issue "One hundred years of Painlevé VI".

– R. Conte, M. Musette, and C. Verhoeven, Painlevé property of the Hénon-Heiles Hamiltonians, 21–38, *Théories asymptotiques et équations de Painlevé*, eds. E. Delabaere and M. Loday, Séminaires et congrès **14** (Société mathématique de France, Paris, 2006).

– C. Verhoeven, M. Musette and R. Conte, On reductions of some KdV-type systems and their link to the quartic Hénon-Heiles Hamiltonian, 363–374, *Bilinear integrable systems - from classical to quantum, continuous to discrete*, eds. L.D. Faddeev, P. van Moerbeke, F. Lambert (Springer, Berlin, 2006). http://arXiv.org/abs/nlin.SI/0405034

– R. Conte, A. M. Grundland, and M. Musette, Reduction of the three-wave resonant interaction to the sixth Painlevé equation, 67–78, in *Asymptotic methods in nonlinear wave phenomena*, eds. T.Ruggeri and M.Sammartino (World scientific, Singapore, 2007).

– R. Conte, On the Lax pairs of the sixth Painlevé equation, RIMS Kôkyûroku Bessatsu **B2** (2007) 21–27.

– R. Conte, Analytic patterns for chaotic equations, Int. J. Mod. Phys. B **21** (2007) 3918–3924.

– R. Conte, Partial integrability of the anharmonic oscillator, J. Nonlinear Math. Phys. **14** (2007) 454–465.

– R. Conte, C. Rogers and W. Schief, Painlevé structure of a multi-ion electrodiffusion system, J. Phys. A **40** F1031–F1040 (2007). http://arxiv.org/abs/0711.0615

– C. Rogers, K.W. Chow and R. Conte, On a capillarity model and the Davey-Stewartson I system: quasi-doubly periodic wave patterns, Il Nuovo Cimento B **122** (2007) 105–111.

– R. Conte, A closed-form solution in a dynamical system related to Bianchi IX, Physics Letters A **372** (2008) 2269–2270. http://arxiv.org/abs/0712.0209

– R. Conte and K.-w. Chow, Doubly periodic waves of a discrete nonlinear Schrödinger system with saturable nonlinearity, J. Nonl. Math. Phys. **15** 398–409 (2008). http://arxiv.org/abs/0812.1196

– S. Bugaychuk and R. Conte, Ginzburg-Landau equation for dynamical four-wave mixing in gain nonlinear media with relaxation, Phys. Rev. E **80** (2009) 066603. http://arxiv.org/abs/0911.2129

– R. Conte and S. Bugaychuk, Explicit solutions of the four-wave mixing model, J. Phys. A: Math. Theor. **42** (2009) FTC 192003 (14p). http://arxiv.org/abs/0903.5476

– R. Conte, A.M. Grundland and B. Huard, Elliptic solutions of isentropic ideal compressible fluid flow in (3+1) dimensions, J. Phys. A **42** (2009) 135203 (14 p). http://arxiv.org/abs/0810.1905

– R. Conte, A.M. Grundland and B. Huard, Riemann-invariant solutions of the isentropic fluid flow equations, Teor. i Matematicheskaya Fizika **159** (2009) 399–410. Theor. Math. Phys. **159** (2009) 752–762. http://arxiv.org/abs/0810.190

– R. Conte and M. Musette, Elliptic general analytic solutions, Studies in Applied Mathematics **123** (2009) 63–81. http://arxiv.org/abs/0903.2009

– R. Conte and T.-W. Ng, Meromorphic solutions of a third order nonlinear differential equation, J. Math. Phys. **51** (2010) 033518 (9 pp). http://arxiv.org/abs/1002.1209

– Nguyen Hai Yen, F. Dias and R. Conte, Exact internal waves of a Boussinesq system, *Waves and stability in continuous media*, eds. A. Greco, S. Rionero and T. Ruggeri (World scientific, Singapore, 2010).

– Zhao Jun-xiao and R. Conte, A connection between HH3 and KdV with one source, J. Math. Phys. **51** (2010) 033511 (6 pp). http://arXiv.org/abs/1001.4978

– S. Bugaychuk and R. Conte, Nonlinear amplification of coherent waves in media with soliton-type refractive index pattern, Phys. Rev. E (2012) **86** 026603 (8 p). http://arxiv.org/abs/1207.2678

– R. Conte and T.-W. Ng, Detection and construction of an elliptic solution to the complex cubic-quintic Ginzburg-Landau equation, Teoreticheskaya i Matematicheskaya Fizika **172** (2012) 224–235. Theor. Math. Phys. **172** (2012) 1073–1084. http://arxiv.org/abs/1204.3028

– R. Conte and T.W. Ng, Meromorphic traveling wave solutions of the complex cubic-quintic Ginzburg-Landau equation, Acta Applicandae Mathematicae **122** 153–166 (2012). http://arxiv.org/abs/1204.3032

– R. Conte, T.-W. Ng and Kwok-Kin Wong, Exact meromorphic solutions of the real cubic Swift-Hohenberg equation, Studies in Applied Mathematics **129** (2012) 117–131. http://arXiv.org/abs/1202.3579

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