

Publicaciones en capítulos de libros, así como libros publicados dentro de la línea de investigación “Ecuaciones diferenciales. Análisis numérico y aplicaciones.” del Programa de Doctorado en Matemáticas por la Universidad de Almería, la Universidad de Cádiz, la Universidad de Granada, la Universidad de Jaén y la Universidad de Málaga durante el período 2013-2018

### Libros publicados

Autores: Vidal-Pérez, Juan Manuel; Muriel-Patino, Concepción

Título: Estudios matemáticos sobre la estabilidad estática de un flotador, con aplicaciones a la teoría del buque

Lugar: Cádiz, España

Editorial:

Año: 2017

Nº de páginas: 98

ISBN: 13: 978-84-617-8432-5

Autores: Ortegon Gallego, Francisco, Redondo Neble, María Victoria, Rodríguez Galván, José Rafael

Título: Trends in Differential Equations and Applications.

Libro: Trends in Differential Equations and Applications. Ortegon Gallego, Francisco, Redondo Neble, María Victoria, Rodríguez Galván, José Rafael (Eds.) 2016.

Serie: SEMA SIMAI Springer Series, Vol. 8, ISBN: 978-3-319-32012-0.

Páginas: 1-451 Fecha: 2016.

Autores: J. M. Díaz Moreno et al.

Título: : Proceedings of the XXIV Congress on Differential Equations / XIV Congress on Applied Mathematics

Libro en formato CD: Proceedings of the XXIV Congress on Differential Equations / XIV Congress on Applied

Mathematics. J. M. Díaz Moreno, J. C. Díaz Moreno, C. García Vázquez, J. Medina Moreno, F. Ortegon Gallego, M. C. Pérez Martínez, M. V. Redondo Neble and J. R. Rodríguez Galván Editors

Serie: Actas Matemáticas y Física, Universidad de Cádiz

ISBN: 978-84-9828-527-7.

Páginas: 1-985 Fecha: 2015.

Publicaciones en capítulos de libros

(2018)

R. de la Rosa Silva, T. M. Garrido, M.S. Bruzón-Gallego. Conservation laws and potential symmetries for a generalized Gardner equation. Trends in Differential Equations and Applications (Sema Simai Springer Series). ISBN: - (2018)

T. M. Garrido, R. de la Rosa Silva, M.S. Bruzón-Gallego. Classical symmetries for two special cases of unsteady flow in nanoporous rock. Trends in Differential Equations and Applications (Sema Simai Springer Series). ISBN: - (2018)

(2017)

M.L. Gandarias, M. Rosa, E. Recio, S.C. Anco. Conservation laws and symmetries of a generalized Kawahara equation. Applied Mathematics and Computer Science. AIP Conference Proceedings. (Vol: 1836, Año: 2017, Pag: 020072-1 – 020072-6) ISBN: 978-0-7354-1506-5

E. Recio, S.C. Anco, M.S. Bruzón. Conservation laws and potential systems for a generalized thin film equation. AIP Conference Proceedings. (Vol: 1863, Año: 2017, Pag: 280002-1 – 280002-4) ISBN: 978-0-7354-1538-6

M.S. Bruzón<sup>∇</sup>, T.M. Garrido<sup>∇</sup>, A.P. Márquez<sup>∇</sup>, R. de la Rosa. Symmetries and conservation laws for a locally damped fifth-order KdV equation. Libro de comunicaciones definitivas presentadas en CEDYA+CMA 2017. (Año: 2017, Pag: 78-83). ISBN: 978-84-944402-1-2

T.M. Garrido<sup>∇</sup>, M.S. Bruzón. Conservation laws of the Barenblatt-Gilman equation. Libro de comunicaciones definitivas presentadas en CEDYA+CMA 2017. (Año: 2017, Pag: 318-321). ISBN: 978-84-944402-1-2

A.P. Márquez, M.S. Bruzón, T.M. Garrido, E. Recio. Lie symmetries and Conservation laws for the viscous Cahn-Hilliard equation. Proceedings of the 17th International Conference on Computational and Mathematical Methods in Science and Engineering, CMMSE 2017. (Año: 2017, Pag: 1370-1373). ISBN: 978-84-617-8694-7

E. Recio, T.M. Garrido, R. de la Rosa, M.S. Bruzón. Conservation laws and symmetries for a generalized Rosenau-RLW equation. Proceedings of the 17th International Conference on Computational and Mathematical Methods in Science and Engineering, CMMSE 2017. (Año: 2017, Pag: 1750-1753).ISBN: 978-84-617-8694-7

R. de la Rosa, E. Recio, T.M. Garrido, M.S. Bruzón. On a generalized variable-coefficient Gardner equation with forcing term. Proceedings of the 17th International Conference on Computational and Mathematical Methods in Science and Engineering, CMMSE 2017. (Año: 2017, Pag: 718-721).ISBN: 978-84-617-8694-7

T.M. Garrido, R. de la Rosa, E. Recio, M.S. Bruzón. Nonclassical symmetries, potential symmetries and conservation laws of the generalized Drinfeld-Sokolov equations. Proceedings of the 17th International Conference on Computational and Mathematical Methods in Science and Engineering, CMMSE 2017. (Año: 2017, Pag:928-931).ISBN: 978-84-617-8694-7

J.C. Camacho, M. Rosa, M.L. Gandarias, M.S. Bruzón. Symmetry analysis for a generalized dissipative Dullin-Gottwald-Holm equation with arbitrary coefficients. Proceedings of the 17th International Conference on Computational and Mathematical Methods in Science and Engineering, CMMSE 17. (Año: 2017, Pag: 498-501).ISBN:: 978-84-617-8694-7

M. Rosa, J.C. Camacho, M.S. Bruzón, M.L. Gandarias. Lie Symmetries for a generalized fourth order nonlinear wave equation. Proceedings of the 17th International Conference on Computational and Mathematical Methods in Science and Engineering, CMMSE 17. (Año: 2017, Pag: 1801-1804).ISBN:: 978-84-617-8694-7

(2016)

R. de la Rosa Silva, M.S. Bruzón. Travelling Wave Solutions of a Generalized Variable-Coefficient Gardner Equation. Trends in Differential Equations and Applications ( Sema Simai Springer Series). ISBN: 978-3-319-32012-0 ( Pag: 405-417 ) (2016)

M. S. Bruzón, A.P. Márquez. Conservation laws of one-dimensional strain-limiting viscoelasticity model. Applied Mathematics and Computer Science 020081. ISBN: 978-0-7354-1506-5. AIP (2017).

T. M. Garrido, A. A. Kasatkin, M. S. Bruzón, R. K. Gazizov. Lie symmetries and equivalence transformations for the Barenblatt-Gilman model. Proceedings of the 16th International Conference on Computational and Mathematical Methods in Science and Engineering, CMMSE 2016. ISBN: 978-84-608-6082-2

(2015)

Autores del capítulo: Muriel-Patino, Concepción; Ruiz-Serván, Adrián

Título del capítulo: Some connections between generalized symmetries and generalized lambda-symmetries for second-order ordinary differential equations

Título del libro: PROCEEDINGS OF THE XXIV CONGRESS ON DIFFERENTIAL EQUATIONS AND APPLICATIONS XIV CONGRESS ON APPLIED MATHEMATICS

Autores del libro:

Página inicial: 467

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Lugar:

Editorial: Universidad de Cádiz. Servicio de Publicaciones

ISBN: 978-84-9828-527-7

Año: 2015

Autores del capítulo: Ramírez-Labrador, José; Romero-Romero, Juan Luis; Muriel-Patino, Concepción

Título del capítulo: A reduction method for polynomial ordinary differential equations and applications

Título del libro: PROCEEDINGS OF THE XXIV CONGRESS ON DIFFERENTIAL EQUATIONS AND APPLICATIONS XIV CONGRESS ON APPLIED MATHEMATICS

Autores del libro:

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Lugar:

Editorial: Universidad de Cádiz. Servicio de Publicaciones

ISBN: 978-84-9828-527-7

Año: 2015

Autores del capítulo: Ruiz, Adrian; Muriel-Patino, Concepción

Título del capítulo: Solvable structures and integrability by quadratures of third-order ordinary differential equations admitting the non-solvable symmetry algebra  $sl(2, \mathbb{R})$

Título del libro: PROCEEDINGS OF THE XXIV CONGRESS ON DIFFERENTIAL EQUATIONS AND APPLICATIONS XIV CONGRESS ON APPLIED MATHEMATICS

Autores del libro:

Página inicial: 473

Página final: 479

Lugar:

Editorial: Universidad de Cádiz. Servicio de Publicaciones

ISBN: 978-84-9828-527-7

Año: 2015

Autores: M.T. González Montesinos, F. Ortegón Gallego,

Título: Numerical simulation of potential Maxwell's equations in the harmonic regime

Ref. revista/libro: Interdisciplinary Topics in Applied Mathematics, Modeling, and Computational Science. Monica G. Cojocaru, Ilias S. Kotsireas, Roman N. Makarov, Roderick V. N. Melnik and Hasan Shodiev Editors

Serie: Springer Proceedings in Mathematics & Statistics, Vol. 117,

ISBN-13: 978-3-319-12306-6.

Volumen: 117, Páginas: 227-233 Fecha: 2015.

M.L. Gandarias, M.S. Bruzón, R. de la Rosa Silva. Exact solutions of a generalized variable-coefficient Gardner equation by using equivalence transformations. Proceedings of the XXIV Congress on Differential Equation and Applications / XIV Congress on Applied Mathematics ( Universidad de Cádiz ) ISBN: 978-84-9828-527-7 ( Pag: 535-540 ) (2015)

M. Rosa, M.L. Gandarias, M.S. Bruzón. Symmetry analysis for a mathematical model of malignant gliomas. Proceedings of the XXIV Congress on Differential Equation and Applications / XIV Congress on Applied Mathematics ( Universidad de Cádiz ) ISBN: 978-84-9828-527-7 ( Pag: 529-534 ) (2015)

M. Rosa, M.L. Gandarias, M.S. Bruzón. A model of malignant gliomas through symmetry reductions. Dynamical Systems. Differential Equations and Applications ( American Institute of Mathematical Sciences )

ISBN: 978-1-14799-7601-0 ( Pag: 974-980 ) ( 2015 )

Jose Carlos Camacho Moreno, M.S. Bruzón. Similarity reductions of a nonlinear model for vibrations of beams. Special Issue Proceedings 2015 ( AIMS ) ISBN: 978-1-4799-7601-0 ( Pag: 176-184 ) (2015)

M.L. Gandarias, M.S. Bruzón, Jose Carlos Camacho Moreno. Classical and nonclassical symmetries and exact solutions for a generalized Benjamin Equation. Special Issue Proceedings 2015 ( AIMS ) ISBN: 978-1-4799-7601-0 ( Pag: 151-158 ) (2015)

Stephen Anco, Elena Recio, M.S. Bruzón, M.L. Gandarias. A Nonlinear Generalization of the Camassa-Holm Equation with Peakon Solutions. Special Issue Proceedings 2015 ( AIMS ) ISBN: 978-1-4799-7601-0 ( Pag: 29-37 ) (2015)

(2014)

Autores del capítulo: Ruiz-Serván, Adrián; Muriel-Patino, Concepción

Título del capítulo: Applications of C-symmetries in the construction of solvable structures

Título del libro: SEMA SIMAI Springer Series

Autores del libro:

Página inicial:

Página final:

Lugar:

Editorial: Springer

ISBN: 2199-3041

Año: 2014

Autores: M.T. González Montesinos, F. Ortegón Gallego.

Título: Weak solutions to a nonuniformly elliptic PDEs system in the harmonic regime.

Ref. libro: Advances in Differential Equations and Applications. Fernando Casas, Vicente Martinez Editors

Serie: SEMA SIMAI Springer Series, Volumen: 4, Páginas, inicial: 31-39 Fecha: 2014. ISBN 978-3-319-12306-6.

M.L. Gandarias, M.S. Bruzón, M.Rosa. Nonlinear Self-Adjointness for some Generalized KdV Equations.

Discontinuity and Complexity in Nonlinear. Physical Systems Nonlinear Systems and Complexity ( Springer )  
(Vol: 6, Pag: 3-21). ( 2014 )

M.L. Gandarias Some conservation laws for a porous medium equation through potential symmetries with free software Computers and mathematics in Automation and Materials Science. Pag: 17-22 (WSEAS Press)  
ISBN: 978-960-474-366-7. (2014)

M.L. Gandarias, M.S. Bruzón, R. de la Rosa Silva. Conservation Laws of a Family of reaction-Diffusion-Convection Equation. Localized Excitations in Nonlinear Complex Systems ( Springer ) ISBN: 978-3-319-02056-0 ( Pag: 403-407 ) (2014)

M. L. Gandarias, M. Rosa, M. S. Bruzón. Symmetry Reductions and Exact Solutions of a Generalized Fisher Equation. Interdisciplinary Topics in Applied Mathematics, Modeling and Computational Science (Vol: 17, Pag: 219-226). ISBN: 978-3-319-12306-6. Springer (2014).

M.S. Bruzón. Weak Self-Adjointness and Conservation Laws for a Family of Benjamin-Bona-Mahony Equations 23-34. ISBN: 978-3-319-01410-4. Springer (2014).

M.S. Bruzón, M.L. Gandarias. Self-Adjointness and Conservation Laws for a Generalized Dullin-Gottwald-Holm Equation. Algebra, Geometry and Mathematical Physics 577-586. ISBN: 978-3-642-55360-8. Springer (2014).

M.L. Gandarias, M.L. Redondo, M.S. Bruzón. Some Conservation Laws for a Class of Hamilton-Jacobi-Bellman Equations. Algebra, Geometry and Mathematical Physics 567-576. ISBN: 978-3-642-55360-8. Springer (2014).

(2013)

M.S. Bruzón, M.L. Gandarias. Conservation laws for a Kuramoto-Sivashinsky equation with dispersive effects. AIP Conference Proceedings ( Vol: 1562 ). Nonlinear and Modern Mathematical Physics. (2013)

M.S. Bruzón, M.L. Gandarias. Nonlinear self-adjointness and conservation laws for a porous medium equation with absorption. AIP Conference Proceedings ( Vol: 1562 ). Nonlinear and Modern Mathematical Physics. (2013)