

List of publications - Delia Ionescu-Kruse

Book chapters

1. Ionescu D., *Gravitational Fields in the Relativistic Theory of Gravitation*. **Current Topics in Continuum Mechanics, Vol. III**, Editor Lazar Dragos, Editura Academiei Române, București 2006, 115–150, ISBN: 973-27-1348-8.

Journal articles

1. Ionescu-Kruse D., *A three-dimensional autonomous nonlinear dynamical system modelling equatorial ocean flows*, **J. Differential Equations** **264** (2018), 4650–4668.
2. Ionescu-Kruse D., *On the short-wavelength stabilities of some geophysical flows*, **Philosophical Transactions of the Royal Society A** **376** (2018), 20170090.
3. Ionescu-Kruse D., Martin C. I., *Local Stability for an Exact Steady Purely Azimuthal Equatorial Flow*, **Journal of Mathematical Fluid Mechanics** **20** (2018), 27–34.
4. Ionescu-Kruse D., *Local stability for an exact steady purely azimuthal flow which models the Antarctic Circumpolar Current*, **Journal of Mathematical Fluid Mechanics** **20** (2018), 569–579.
5. Ionescu-Kruse D., *Variational derivation of a geophysical Camassa-Holm type shallow water equation*, **Nonlinear Analysis** **156** (2017), 286–294.
6. Ionescu-Kruse D., Martin C. I., *Periodic equatorial water flows from a Hamiltonian perspective*, **Journal of Differential Equations** **262** (2017), 4451–4474.
7. Ionescu-Kruse D., *Exact steady azimuthal edge waves in rotating fluids*, **Journal of Mathematical Fluid Mechanics** **19** (2017), 501–513.
8. Ionescu-Kruse D., *Instability of Pollard’s exact solution for geophysical ocean flows*, **Physics of Fluids** **28** (2016), no.086601.
9. Dutykh D., Ionescu-Kruse D., *Travelling wave solutions for some two-component shallow water models*, **Journal of Differential Equations** **261** (2016), 1099–1114.
10. Ionescu-Kruse D., *Instability of equatorially trapped waves in stratified water*, **Annali di Matematica Pura ed Applicata** **195** (2016), 585–599.
11. Ionescu-Kruse D., *An exact solution for geophysical edge waves in the f -plane approximation*, **Nonlinear Analysis: Real World Applications** **24** (2015), 190–195.
12. Ionescu-Kruse D., *An Exact Solution for Geophysical Edge Waves in the β -Plane Approximation*, **Journal of Mathematical Fluid Mechanics** **17** (2015), 699–706.

13. Ionescu-Kruse D., *Short-wavelength instabilities of edge waves in stratified water*, **Discrete and Continuous Dynamical Systems A** **35** (2015), 2053–2066.
14. Ionescu-Kruse D., *A new two-component system modelling shallow-water waves*, **Quarterly of Applied Mathematics** **73** (2015), 331–346.
15. Ionescu-Kruse D., *On Pollard’s wave solution at the Equator*, **Journal of Nonlinear Mathematical Physics** **22** (2015), 523–530.
16. Ionescu-Kruse D., *Instability of edge waves along a sloping beach*, **Journal of Differential Equations** **256** (2014), 3999–4012.
17. Ionescu-Kruse D., *On the small-amplitude long waves in linear shear flows and the Camassa-Holm equation*, **Journal of Mathematical Fluid Mechanics** **16** (2014), 365–374.
18. Ionescu-Kruse D., Matic A., *Small-amplitude equatorial water waves with constant vorticity: dispersion relations and particle trajectories*, **Discrete and Continuous Dynamical Systems A** **34** (2014), 3045–3060.
19. Ionescu-Kruse D., *On the particle paths and the stagnation points in small-amplitude deep-water waves*, **Journal of Mathematical Fluid Mechanics** **15** (2013), 41–54.
20. Ionescu-Kruse D., *Variational derivation of two-component Camassa-Holm shallow water system*, **Applicable Analysis** **92** (2013), 1241–1253.
21. Ionescu-Kruse D., *Variational derivation of the Green-Naghdi shallow-water equations*, **Journal of Nonlinear Mathematical Physics** **19** (2012), art. no.: 1240001.
22. Ionescu-Kruse D., *Elliptic and hyperelliptic functions describing the particle motion beneath small-amplitude water waves with constant vorticity*, **Communications on Pure and Applied Analysis** **11** (2012), 1475–1496.
23. Ionescu-Kruse D., *Peakons arising as particle paths beneath small-amplitude water waves in constant vorticity flows*, **Journal of Nonlinear Mathematical Physics** **17** (2010), 415–422.
24. Ionescu-Kruse D., *Small-amplitude capillary-gravity water waves: Exact solutions and particle motion beneath such waves*, **Nonlinear Analysis: Real World Applications** **11** (2010), 2989–3000.
25. Ionescu-Kruse D., *Exact solutions for small-amplitude capillary-gravity water waves*, **Wave Motion** **46** (2009), 379–388.
26. Ionescu-Kruse D., *Particle trajectories beneath small amplitude shallow water waves in constant vorticity flows*, **Nonlinear Analysis** **71** (2009), 3779–3793.
27. Ionescu-Kruse D., *Particle trajectories in linearized irrotational shallow water flows*, **Journal of Nonlinear Mathematical Physics** **15** (2008), 13–27.
28. Ionescu-Kruse D., *Variational derivation of the Camassa-Holm shallow water equation with non-zero vorticity*, **Discrete and Continuous Dynamical Systems A** **19** (2007), 531–543.

29. Ionescu-Kruse D., *Liapunov's direct method for Birkhoffian systems: Applications to electrical networks*, **Journal of Geometry and Physics** **57** (2007), 2213–2228.
30. Ionescu-Kruse D., *Variational derivation of the Camassa-Holm shallow water equation*, **Journal of Nonlinear Mathematical Physics** **14** (2007), 303–312.
31. Ionescu D., Scheurle J., *Birkhoffian formulation of the dynamics of LC circuits*, **Zeitschrift für angewandte Mathematik und Physik** **58** (2007), 175–208.
32. Ionescu D., *A geometric Birkhoffian formalism for nonlinear RLC networks*, **Journal of Geometry and Physics** **56** (2006), 2545–2572.
33. Ionescu D., *The Gravitational Field of an Electrically Charged Mass Point and the Causality Principle in RTG*, **Theoretical and Mathematical Physics** **136** (2003), 1177–1187.
34. Ionescu D., *Comparative Analysis of the Electrogravitational Kepler Problem in GRT and RTG*, **International Journal of Non-Linear Mechanics** **38** (2003), 1251–1268.
35. Ionescu D., *Can the Notion of a Homogeneous Gravitational Field be Transferred from Classical Mechanics to the Relativistic Theory of Gravity?*, **Theoretical and Mathematical Physics** **130** (2002), 287–297.
36. Ionescu D., Soós E., *Simultaneity and non-holonomy*, **Annals of the University of Timișoara, Mathematics and Computer Science series** **39** (2001).
37. Ionescu D., Soós E., *Electrogravitational Field Produced by a Charged Mass Point in RTG*, **Revue Romaine de Mathématiques Pures et Appliqués** **45** (2000), 251–260.

Preprints

1. Dutykh D., Ionescu-Kruse D., *Effects of vorticity on the travelling waves of some shallow water two-component systems*, preprint (2018).
2. Chu J., Ionescu-Kruse D., Yang Y., *Exact solution and instability for geophysical trapped waves at arbitrary latitude*, preprint (2018).
3. Chu J., Ionescu-Kruse D., Yang Y., *Exact solution and instability for geophysical trapped waves with centripetal forces at arbitrary latitude*, preprint (2018).

Conference proceedings

1. Ionescu-Kruse D., *The Camassa-Holm equation modelling shallow water waves over a constant vorticity flow*, **Proceedings of the 6-th Congress of Romanian Mathematicians, Publishing House of the Romanian Academy** (2007), vol. 1, 511-519, ISBN: 978-973-27-1781-3/v.1.
2. Ionescu D., *A geometric modelling of nonlinear RLC networks*, **Proceedings in Applied Mathematics and Mechanics (PAMM)** **6** (2006), 813–814, WILEY-VCH Verlag GmbH & Co. KGaA, Weinheim, ISSN: 1617-7061.

3. Ionescu D., *Geometric modelling of the dynamics of electrical circuits*, **Modern Trends in Geometry and Topology, Deva 5–11 September 2005**, Editors: Dorin Andrica, Paul A. Blaga, Sergiu Moroianu, Cluj University Press (2006), 215–229, ISBN: 973-610-429-X;978-973-610-429-9.
4. Ionescu D., Soós E., *Consequences of the Causality Principle in the Relativistic Theory of Gravitation*, **Proceedings of the XXIII International Workshop on High Energy Physics and Field Theory, Protvino (Russia), June 21-23 (2000)**, 180–190, ISBN: 5-88738-038-1.