

PUBLICATIONS

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Journal articles

1. B. Pelloni, B. and Smith, D. A. , *The role of periodicity in the solution of third order boundary value problems*, submitted (2022)
2. D. Bourne, C.J.Cotter, M.J.P. Cullen, C. Egan, B. Pelloni, S. Roper, M. Wilkinson, *A new implementation of the geometric method for solving the Eady slice equations*, J Comp Phys (in press, 2022)
3. A.S. Fokas, B. Pelloni and D.A. Smith, *Time-periodic linear boundary value problems on a finite interval*, Q J Appl Math (in press 2022)
4. D. Bourne, C. Egan, B. Pelloni and M. Wilkinson, *Semi-discrete optimal transport methods for the semi-geostrophic equations*, Calc. Var. PDE (in press 2022)
5. L. Boulton, G. Farmakis and B. Pelloni, *Beyond periodic revivals for linear dispersive PDEs*, in press, Proc. Royal Soc A **477** (2021)
6. L. Boulton, P.J. Olver, B. Pelloni and D.A. Smith, *New revival phenomena for linear integro-differential equations*, Stud Appl Math **147** (2021)
7. A.S. Fokas, B. Pelloni and Baoqiang Xia, *Evolution equations on time-dependent intervals*, IMA Journal of Applied Mathematics (2019) **84**, 1044-1060
8. M.J.P.Cullen, T. Kuna, B. Pelloni and M. Wilkinson *The Stability Principle and global weak solutions of the free-surface semi-geostrophic equations*, Proc Royal Soc A, (2019) **475**, 2229.
9. B. Pelloni, B. and Smith, D. A. , *Nonlocal and multipoint boundary value problems for linear PDEs*, Studies in Applied Mathematics (2018) **141** 46-88
10. Kesici E., Pelloni B., Pryer T. and Smith, D.A., *Numerical implementation of the unified Fokas transform for evolution problems on a finite interval*, European Journal of Applied Mathematics (2018) **29** 543-567
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14. M.J.P.Cullen, D. K. Gilbert and B. Pelloni, "Lagrangian Solutions of the Fully Compressible Semi-Geostrophic System in Physical Space", *Comm PDE* (2014) **39** 591-625.
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16. A.S. Fokas, J. Lenells and B. Pelloni, "Explicit solutions for the elliptic sine-Gordon equation in a semistrip", *J. Nonlin. Sci* **23**, (2013), 241-282
17. A.S. Fokas and B. Pelloni, "Generalized Dirichlet to Neumann map in time dependent domains", *Stud. Appl. Math.* **139** (2012) 51-90
18. A.S. Fokas and B. Pelloni, "The Dirichlet to Neumann map for the elliptic sine-Gordon equation", *Nonlinearity* **25** (2012) 1011
19. A.S. Fokas and B. Pelloni, "Generalised Dirichlet-to-Neumann map in time-dependent domains", *Studies in Applied Math* (2012) **129**, 51-90.
20. B. Pelloni and D. Pinotsis, "The elliptic sine-Gordon equation in a half plane", *Nonlinearity* **23** (2010) 77-88.
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5. B. Pelloni, Two-point boundary value problems for integrable evolution equations in one space dimension, *Annals of the Marie Curie Fellow Association* (2000), **1**, 30-35

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1. B. Pelloni and D.A. Pinotsis, *Moving boundary value problems for the wave equation*, *J. Comp. Appl. Math.*, Proceedings of Waves 2007, (in press, DOI: 10.1016/j.cam.2009.08.016)
2. B. Pelloni and D.A. Pinotsis, The Klein-Gordon equation on the half line: a Riemann-Hilbert approach, *J. Nonl. Math. Phys.*, Proceedings of NEEDS2007, **15** (2008), 334-344 .
3. B. Pelloni, *The propagation of nonlinear water waves in a bounded domain*, Proceedings of *Waves 2003*, Finland, July 2003
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1. A.S. Fokas and B. Pelloni, eds, *Unified Transform for Boundary Value Problems: Applications and Advances*, Other titles in Applied Mathematics SIAM (2015)
2. A. Hone, B. Pelloni, and D. Papageorgiou. Eds., *Special Issue: IMA Conference on Nonlinearity and Coherent Structures*, IMA J Appl Math (2012) **77**
3. M. Bruschi, B. Pelloni and O. Ragnisco, Eds., *Nonlinear Evolution Equations and Dynamical Systems*, Proceedings of the 13th Workshop, Crete, June 20-30, 1999, Journal of Nonlinear Mathematical Physics, Supplement to Vol. 8, Feb. 2001

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- E2. *Boundary Value Problems* in the Encyclopedia of Nonlinear Science. Ed. Alwyn Scott. New York: Routledge, 2005 (<http://www.routledge-ny.com/nonlinearsci/>)
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