

Publications by Helge Holden¹

(i) Theses

- [1] Konvergens mot punkt-interaksjoner (In Norwegian)
Cand. real. thesis, University of Oslo 1981
- [2] Point interactions and the short-range expansion. A solvable model in quantum mechanics and its approximation
Dr. Philos. Dissertation, University of Oslo 1985

(ii) Books

- [1] **Solvable Models in Quantum Mechanics**
Texts and Monographs in Physics
Springer-Verlag, Berlin-Heidelberg-New York-London-Paris-Tokyo 1988, 452 pp.
(with S. Albeverio, F. Gesztesy, R. Høegh-Krohn)
Translation into the Russian, Mir, Moscow 1991
(Translated by Yu. A. Kuperin, K. A. Makarov, V. A. Geiler)
Second edition with an Appendix by P. Exner
AMS Chelsea Publishing, volume 350
Chelsea Publishing, American Mathematical Society, Providence, 2005
- [2] **Stochastic Partial Differential Equations.**
A Modeling, White Noise Functional Approach
Birkhäuser Verlag, Basel, 1996, 231 pp.
Second edition, *Universitext*, Springer-Verlag, 2010, 305 pp.
(with J. Ubøe, B. Øksendal, T. Zhang)
- [3] **Sturm–Liouville Operators and Hilbert Spaces: A Brief Introduction**
Tapir forlag, Trondheim, 2000, 90 pp.
Second edition, 2001
- [4] **Front Tracking for Hyperbolic Conservation Laws**
Applied Mathematical Sciences, volume 152
Springer-Verlag, New York, 2002, 380 pp.
Second corrected printing, 2007
Softcover and eBook, 2011
Second edition (Hard- and softcover, eBook, “MyCopy”), 2015, 516 pp.
(with N. H. Risebro)
- [5] **Soliton Equations and Their Algebro-Geometric Solutions**
Volume I: (1 + 1)-Dimensional Continuous Models

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Cambridge Studies in Advanced Mathematics, volume 79
Cambridge University Press, Cambridge, 2003, 530 pp.
(with F. Gesztesy)

- [6] **Soliton Equations and Their Algebro-Geometric Solutions
Volume II: (1 + 1)-Dimensional Discrete Models**
Cambridge Studies in Advanced Mathematics, volume 114
Cambridge University Press, Cambridge, 2008, 452 pp.
(with F. Gesztesy, J. Michor, and G. Teschl)
- [7] **Operator Splitting for Nonlinear Partial Differential Equations with Rough Solutions
Analysis and Matlab Programs**
EMS Series of Lectures in Mathematics, EMS Publishing House, Zurich, 2010, 226 pp.
(with K. H. Karlsen, K.-A. Lie, N. H. Risebro)

(iii) Publications in international, refereed journals

- [1] The spectrum of defect periodic point interactions
Letters in Mathematical Physics **7** (1983) 221–228
(with R. Høegh-Krohn, F. Martinelli)
- [2] The short range expansion
Advances in Applied Mathematics **4** (1983) 402–421
(with R. Høegh-Krohn, S. Johannesen)
- [3] On absence of diffusion near the bottom of the spectrum
for a random Schrödinger operator on $L^2(\mathbf{R}^V)$
Communications in Mathematical Physics **93** (1984) 197–217
(with F. Martinelli)
- [4] The short-range expansion in solid state physics
Annales de l'Institut Henri Poincaré, Section A, Physique Théorique **41** (1984) 335–362
(with R. Høegh-Krohn, S. Johannesen)
- [5] The short-range expansion for multiple well scattering theory
Journal of Mathematical Physics **26** (1985) 145–151
(with R. Høegh-Krohn, M. Mebkhout)
- [6] The Fermi surface for point interactions
Journal of Mathematical Physics **27** (1986) 385–405
(with R. Høegh-Krohn, S. Johannesen, T. Wentzel-Larsen)
- [7] On coupling constant thresholds in two dimensions
Journal of Operator Theory **14** (1985) 263–276
- [8] A unified approach to eigenvalues and resonances of Schrödinger operators
using Fredholm determinants
Journal of Mathematical Analysis and Applications **123** (1987) 181–198
Addendum **132** (1988) 309

(with F. Gesztesy)

- [9] Point interactions in two dimensions. Basic properties, approximations and applications to solid state physics
Journal für die reine und angewandte Mathematik **380** (1987) 87–107
(with S. Albeverio, F. Gesztesy, R. Høegh-Krohn)
- [10] Stochastic multiplicative measures, generalized Markov semigroups and group valued stochastic processes and fields
Journal of Functional Analysis **78** (1988) 154–184
(with S. Albeverio, R. Høegh-Krohn)
- [11] On energy gaps in a new type of analytically solvable models in quantum mechanics
Journal of Mathematical Analysis and Applications **134** (1988) 9–29
(with F. Gesztesy, W. Kirsch)
- [12] On the Riemann problem for a prototype of mixed type conservation law
Communications on Pure and Applied Mathematics **20** (1987) 229–264
- [13] A new class of analytically solvable models in quantum mechanics on the line
Journal of Physics A: Mathematical and General **20** (1987) 5157–5177
(with F. Gesztesy)
- [14] A numerical method for first order nonlinear scalar hyperbolic conservation laws in one dimension
Computers and Mathematics with Applications **15** (1988) 595–602
(with L. Holden, R. Høegh-Krohn)
- [15] A law of large numbers and a central limit theorem for the Schrödinger operator with zero range potentials
Journal of Statistical Physics **51** (1988) 206–214
(with R. Figari, A. Teta)
- [16] Representation and construction of multiplicative noise
Journal of Functional Analysis **87** (1989) 250–272
(with S. Albeverio, R. Høegh-Krohn, T. Kolsrud)
- [17] Trapping and cascading of eigenvalues in the large coupling limit
Communications in Mathematical Physics **118** (1988) 597–634
(with F. Gesztesy, D. Gurarie, M. Klaus, L. Sadun, B. Simon, P. Vogl)
- [18] Construction of quantized Higgs-like fields in two dimensions
Physics Letters **222B** (1989) 263–268
(with S. Albeverio, R. Høegh-Krohn, T. Kolsrud)
- [19] A new front-tracking method for reservoir simulation
SPE Reservoir Engineering **7** (1992) 107–116
(with F. Bratvedt, K. Bratvedt, C. Buchholz, L. Holden, N. H. Risebro)
- [20] Explicit construction of solutions of the modified Kadomtsev–Petviashvili equation
Journal of Functional Analysis **98** (1991) 211–228
(with F. Gesztesy, E. Saab, B. Simon)

- [21] On the stochastic Buckley–Leverett equation
SIAM Journal of Applied Mathematics **51** (1991) 1472–1488
(with N. H. Risebro)
- [22] On the Toda and Kac–van Moerbeke systems
Transactions of the American Mathematical Society **339** (1993) 849–868
(with F. Gesztesy, B. Simon, Z. Zhao)
- [23] A method of fractional steps for scalar conservation laws without the CFL condition
Mathematics of Computation **60** (1993) 221–232
(with N. H. Risebro)
- [24] Stochastic boundary value problems. A white noise functional approach
Probability Theory and Related Fields **95** (1993) 39–419
(with T. Lindstrøm, B. Øksendal, J. Ubøe, T.-S. Zhang)
- [25] Discrete Wick calculus and stochastics functional equations
Potential Analysis **1** (1992) 291–306
(with T. Lindstrøm, B. Øksendal, J. Ubøe)
- [26] Frontline and Frontsim; Two full scale, two-phase, black oil reservoir simulators based on front tracking
Surveys on Mathematics in Industry **3** (1993) 185–215
(with F. Bratvedt, K. Bratvedt, C. F. Buchholz, T. Gimse, L. Holden, N. H. Risebro)
- [27] Comment on a recent note on the Schrödinger equation with a δ' -interaction
Journal of Physics A: Mathematical and General **26** (1993) 3903–3904
(with S. Albeverio, F. Gesztesy)
- [28] The Burgers equation with a noisy force
Communications in Partial Differential Equations **19** (1994) 119–142
(with T. Lindstrøm, B. Øksendal, J. Ubøe, T.-S. Zhang)
- [29] Trace formulae and inverse scattering for Schrödinger operators
Bulletin of the American Mathematical Society **29** (1993) 250–255
(with F. Gesztesy, B. Simon, Z. Zhao)
- [30] Trace formulas and conservation laws for nonlinear evolution equations
Reviews in Mathematical Physics **6** (1994) 51–95, *Errata*, *ibid.* 673
(with F. Gesztesy)
- [31] A mathematical model of traffic flow on a network of unidirectional roads
SIAM Journal on Mathematical Analysis, **26** (1995) 999–1017
(with N. H. Risebro)
- [32] The pressure equation for fluid flow in a stochastic medium
Potential Analysis **4** (1995) 655–674
(with T. Lindstrøm, B. Øksendal, J. Ubøe, T.-S. Zhang)
- [33] Maximum principles for a class of conservation laws
SIAM Journal of Applied Mathematics **55** (1995) 651–661
(with N. H. Risebro, A. Tveito)

- [34] Absolute summability of the trace relation for certain Schrödinger operators
Communications in Mathematical Physics **168** (1995) 137–168
(with F. Gesztesy, B. Simon)
- [35] Higher order trace relations for Schrödinger operators
Reviews in Mathematical Physics **7** (1995) 893–922
(with F. Gesztesy, B. Simon, Z. Zhao)
- [36] Conservation laws with a random source
Applied Mathematics & Optimization **36** (1997) 229–241
(with N. H. Risebro)
- [37] Algebraic-geometric quasi-periodic finite-gap solutions of the Toda and Kac–van Moerbeke hierarchy
Memoirs of the American Mathematical Society **135** (1998), no. 641
(with W. Bulla, F. Gesztesy, G. Teschl)
- [38] Finite difference approximation of the pressure equation for fluid flow in a stochastic medium
Communications in Partial Differential Equations **21** (1996) 1367–1388
(with Y. Hu)
- [39] A trace formula for multidimensional Schrödinger operators
Journal of Functional Analysis **141** (1996) 449–465
(with F. Gesztesy, B. Simon, Z. Zhao)
- [40] Riemann problems with a kink
SIAM Journal of Mathematical Analysis **30** (1999) 497–515
(with N. H. Risebro)
- [41] An unconditionally stable method for the Euler equations
Journal of Computational Physics **150** (1999) 76–96
(with K.-A. Lie, N. H. Risebro)
- [42] Unconditionally stable splitting methods for the shallow water equations
BIT Numerical Mathematics **39** (1999) 451–472
(with R. Holdahl, K.-A. Lie)
- [43] Dubrovin equations and integrable systems on hyperelliptic curves
Mathematica Scandinavica, **91** (2002) 91–126
(with F. Gesztesy)
- [44] Operator splitting methods for generalized Korteweg–de Vries equations
Journal of Computational Physics **153** (1999) 203–222
(with K. H. Karlsen, N. H. Risebro)
- [45] The classical Boussinesq hierarchy revisited
Det Kongelige Norske Videnskabers Selskabs Skrifter
(*Transactions of the Royal Norwegian Society of Sciences and Letters*) **1** (2000)
(with F. Gesztesy)
- [46] Darboux-type transformations and hyperelliptic curves
Journal für die reine und angewandte Mathematik, **527** (2000) 151–183

(with F. Gesztesy)

- [47] Borg-type theorems for matrix-valued Schrödinger operators
Journal of Differential Equations **167** (2000) 181–210
(with S. Clark, F. Gesztesy, B. Levitan)
- [48] The Riemann problem for an elastic string with a linear Hooke's law
Quarterly of Applied Mathematics **60** (2002) 695–705
(with H. Hanche-Olsen, N. H. Risebro)
- [49] Operator splitting methods for degenerate convection-diffusion equations II: Numerical examples with emphasis on reservoir simulation and sedimentation
Computational Geosciences **4** (2000) 287–322
(with K. H. Karlsen, K.-A. Lie)
- [50] Algebro-geometric solutions of Camassa–Holm hierarchy
Revista Matemática Iberoamericana **19** (2003) 73–142.
(with F. Gesztesy)
- [51] Real-valued algebro-geometric solutions of the Camassa–Holm hierarchy
Philosophical Transactions of the Royal Society (London) A **366** (2008) 1025–1054
(with F. Gesztesy)
- [52] The hyperelliptic ζ -function and the integrable massive Thirring equation
Proceedings of the Royal Society (London) **459A** (2003) 1581–1610.
(with J. C. Eilbeck and V. Z. Enolskii)
- [53] On uniqueness and existence of entropy solutions of weakly coupled systems of nonlinear degenerate parabolic systems
Electronic Journal of Differential Equations, **2003** (2003), no. 46, 1–31
(with K. H. Karlsen and N. H. Risebro)
- [54] Spectral analysis of Darboux transformations for the focusing NLS hierarchy
Journal d'Analyse Mathématique **93** (2004) 139–197
(with R. C. Cascaval, F. Gesztesy, and Y. Latushkin)
- [55] Stability of solutions of quasilinear parabolic equations
Journal of Mathematical Analysis and Applications **308** (2005) 221–239.
(with G. M. Coclite)
- [56] Algebro-geometric solutions of a discrete system related to the trigonometric moment problem
Communications in Mathematical Physics **258** (2005) 149–177
(with J. Geronimo, F. Gesztesy)
- [57] Convergence of a finite difference scheme for the Camassa–Holm equation
SIAM Journal of Numerical Analysis **44** (2006) 1655–1680.
(with X. Raynaud)
- [58] Contract adjustment under uncertainty
Journal of Economic Dynamics and Control **34** (2010) 657–680.
(with L. and S. Holden)
- [59] Wellposedness for a parabolic-elliptic system

- Discrete and Continuous Dynamical Systems* **13** (2005) 659–682
(with G. M. Coclite and K. H. Karlsen)
- [60] Global weak solutions to a generalized hyperelastic-rod wave equation
SIAM Journal of Mathematical Analysis **37** (2005) 1044–1069.
(with G. M. Coclite and K. H. Karlsen)
- [61] A convergent numerical scheme for the Camassa–Holm equation based on multipeakons
Discrete and Continuous Dynamical Systems **14** (2006) 505–523.
(with X. Raynaud)
- [62] Convergent difference schemes for the Hunter–Saxton equation
Mathematics of Computation **76** (2007) 699–744
(with K. H. Karlsen and N. H. Risebro)
- [63] The Schrödinger–Maxwell system with Dirac mass
Annales de l’Institut Henri Poincaré. Analyse Non Linéaire **24** (2007) 773–793
Erratum **25** (2008) 833–836
(with G. M. Coclite)
- [64] Global conservative solutions of the Camassa–Holm equation—a Lagrangian point of view
Communications in Partial Differential Equations **32** (2007) 1511–1549
(with X. Raynaud)
- [65] The algebro-geometric Toda hierarchy initial value problem for complex-valued initial data
Revista Matemática Iberoamericana **24** (2008) 117–182
(with F. Gesztesy and G. Teschl)
- [66] Global conservative multipeakon solutions of the Camassa–Holm equation
Journal of Hyperbolic Differential Equations **4** (2007) 39–64
(with X. Raynaud)
- [67] Global conservative solutions of the generalized hyperelastic-rod wave equation
Journal of Differential Equations **233** (2007) 448–484
(with X. Raynaud)
- [68] Local conservation laws and the Hamiltonian formalism for the Toda hierarchy revisited
Det Kongelige Norske Videnskabers Selskabs Skrifter
(*Transactions of the Royal Norwegian Society of Sciences and Letters*) 2006(3) 1–30.
(with F. Gesztesy)
- [69] Periodic conservative solutions of the Camassa–Holm equation
Annales de l’Institut Fourier (Grenoble) **58** (2008) 945–988.
(with X. Raynaud)
- [70] Well-posedness of higher-order Camassa–Holm equations
Journal of Differential Equations **246** (2009) 929–963.
(with G. M. Coclite and K. H. Karlsen)
- [71] Optimal rebalancing of portfolios with transaction costs
Stochastics **85** (2013) 371–394 (doi: 10.1080/17442508.2011.651219)
(with L. Holden)

- [72] Algebro-geometric finite-band solutions of the Ablowitz–Ladik hierarchy
International Mathematics Research Notices 2007, Article ID rnm082, 55 pp.
(with F. Gesztesy, J. Michor, G. Teschl)
- [73] The algebro-geometric initial value problem for the Ablowitz–Ladik hierarchy
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(with F. Gesztesy, J. Michor, G. Teschl)
- [74] A convergent finite difference method for a nonlinear variational wave equation
IMA Journal of Numerical Analysis **29** (2009) 539–572
(with K. H. Karlsen and N. H. Risebro)
- [75] The solution of the Cauchy problem with large data for a model of a mixture of gases
Journal of Hyperbolic Differential Equations **6** (2009) 25–106
(with N. H. Risebro and H. Sande)
- [76] Local conservation laws and the Hamiltonian formalism for the Ablowitz–Ladik hierarchy
Studies in Applied Mathematics **120** (2008) 361–423
(with F. Gesztesy, J. Michor, G. Teschl)
- [77] Dissipative solutions for the Camassa–Holm equation
Discrete and Continuous Dynamical Systems **24** (2009) 1047–1112
(with X. Raynaud)
- [78] Ground states of the Schrödinger–Maxwell system with Dirac mass: Existence and asymptotics
Discrete and Continuous Dynamical Systems, Series A **27** (2010) 117–132.
(with G. M. Coclite)
- [79] Global dissipative multipeakon solutions for the Camassa–Holm equation
Communications in Partial Differential Equations **33** (2008) 2040–2063
(with X. Raynaud)
- [80] Front tracking for a model of immiscible gas flow with large data
BIT Numerical Mathematics **50** (2010) 331–376
(with N. H. Risebro and H. Sande)
- [81] Symmetric waves are traveling waves
International Mathematics Research Notices 2009, Article ID rnp100, 19 pp.
doi:10.1093/imrn/rnp100
(with M. Ehrnström and X. Raynaud)
- [82] Zero diffusion-dispersion-smoothing limits for a scalar conservation law
with discontinuous flux function
International Journal of Differential Equations **2009** (2009)
Article ID 279818, pp. 33 (doi:10.1155/2009/279818)
(with K. H. Karlsen and D. Mitrovic)
- [83] Lipschitz metric for the Hunter–Saxton equation
Journal de Mathématiques Pures et Appliquées **94** (2010) 68–92.
(with A. Bressan and X. Raynaud)
- [84] The Kolmogorov–Riesz compactness theorem

- Expositiones Mathematicae* **28** (2010) 385–394
 Addendum, *ibid.* **34** (2016) 243–245
 (with H. Hanche-Olsen)
- [85] Operator splitting for the KdV equation
Mathematics of Computation **80** (2011) 821–846
 (with K. H. Karlsen, N. H. Risebro, and T. Tao)
- [86] Global semigroup of conservative solutions of the nonlinear variational wave equation
Archive for Rational Mechanics and Analysis **201** (2011) 871–964
 (with X. Raynaud)
- [87] Strong compactness of approximated solutions to degenerate elliptic-hyperbolic equations with discontinuous flux function
Acta Mathematica Scientia **29B** (2009) 1573–1612
 (with K. H. Karlsen, D. Mitrovic, and E. Yu. Panov)
- [88] Lipschitz metric for the periodic Camassa–Holm equation
Journal of Differential Equations **250** (2011) 1460–1492.
 (with K. Grunert and X. Raynaud)
- [89] L^∞ solutions for a model of polytropic gas flow with diffusive entropy
SIAM Journal of Mathematical Analysis **43** (2011) 2253–2274
 (with H. Frid and K. H. Karlsen)
- [90] The damped string problem revisited
Journal of Differential Equations **251** (2011) 1086–1127
 (with F. Gesztesy)
- [91] Lipschitz metric for the Camassa–Holm equation on the line
Discrete and Continuous Dynamical Systems, Series A **33** (2013) 2809–2827
 (with K. Grunert and X. Raynaud)
- [92] Abstract wave equations and associated Dirac-type operators
Annali di Matematica Pura ed Applicata **191** (2012) 631–676
 (with F. Gesztesy, J. M. Goldstein, and G. Teschl)
- [93] Operator splitting for two-dimensional incompressible fluid equations
Mathematics of Computation **82** (2013) 719–748
 (with K. H. Karlsen and T. Karper)
- [94] Operator splitting for partial differential equations with Burgers nonlinearity
Mathematics of Computation, **82** (2013) 173–185
 (with C. Lubich and N. H. Risebro)
- [95] Global conservative solutions of the Camassa–Holm equation for initial data with nonvanishing asymptotics
Discrete and Continuous Dynamical Systems, Series A **32** (2012) 4209–4227
 (with K. Grunert and X. Raynaud)
- [96] Global solutions for the two-component Camassa–Holm system
Communications in Partial Differential Equations **37** (2012) 2245–2271

- (with K. Grunert and X. Raynaud)
- [97] Operator splitting for well-posed active scalar equations
SIAM Journal of Mathematical Analysis **45** (2013) 152–180
(with K. H. Karlsen and T. Karper)
- [98] Convergence of a fully discrete finite difference scheme for the Korteweg–de Vries equation
IMA Journal of Numerical Analysis **35** (2015) 1047–1077 (doi:10.1093/imanum/dru040)
(with U. Koley and N. H. Risebro)
- [99] On the inverse problem for scalar conservation laws
Inverse Problems **30** (2014) 035015 (35 pp.)
(with F. S. Priuli and N. H. Risebro)
- [100] Global dissipative solutions of the two-component Camassa–Holm system for initial data with nonvanishing asymptotics
Nonlinear Analysis: Real World Applications **17** (2014) 203–244
(with K. Grunert and X. Raynaud)
- [101] A continuous interpolation between conservative and dissipative solutions for the two-component Camassa–Holm system
Forum of Mathematics, Sigma, (2015) vol. 3, e1, 73 pp. (doi:10.1017/fms.2014.29)
(with K. Grunert and X. Raynaud)
- [102] On factorizations of analytic operator-valued functions and eigenvalue multiplicity questions
Integral Equations and Operator Theory **82** (2015) 61–94 (DOI 10.1007/s00020-014-2200-7)
Erratum *loc. cit.* **85** (2016) 301–302 (DOI 10.1007/s00020-016-2290-5)
(with F. Gesztesy and R. Nichols)
- [103] On the Braess paradox with nonlinear dynamics and control theory
Journal of Optimization Theory and Applications **168** (2016) 216–230
(DOI 10.1007/s10957-015-0729-5)
(with R. Colombo)
- [104] Convergence of finite difference schemes for the Benjamin–Ono equation
Numerische Mathematik **134** (2016) 249–274. (DOI 10.1007/s00211-015-0778-6)
(with R. Dutta, U. Koley, N. H. Risebro)
- [105] The general peakon-antipeakon solution for the Camassa–Holm equation
Journal of Hyperbolic Differential Equations **13** (2016) 353–380
(with K. Grunert)
- [106] Operator splitting for the Benjamin–Ono equation
Journal of Differential Equations **259** (2015) 6694–6717
(with R. Dutta, U. Koley, N. H. Risebro)
- [107] Isentropic fluid dynamics in a curved pipe
Zeitschrift für angewandte Mathematik und Physik, **67**:131 (2016) 10 pp.
(doi: 10.1007/s00033-016-0725-0)
(with R. Colombo)
- [108] Real-valued algebro-geometric solutions of the two-component Camassa–Holm hierarchy

- Annales de l'Institut Fourier (Grenoble)* **67** (2017) 1185–1230 (doi: 10.1007/s00033-016-0725-0)
(with J. Eckhardt, F. Gesztesy, A. Kostenko, G. Teschl)
- [109] Dirichlet-to-Neumann maps, abstract Weyl–Titchmarsh M -functions,
and a generalized index of unbounded meromorphic operator-valued functions
Journal of Differential Equations **261** (2016) 3551–3587 (doi: 10.1016/j.de.2016.05-033).
(with J. Behrndt, F. Gesztesy, R. Nichols)
- [110] A Lipschitz metric for the Hunter–Saxton equation
Communications in Partial Differential Equations **44:4** (2019) 309–334.
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(with J. A. Carrillo, K. Grunert)
- [111] Continuum limit of Follow-the-Leader models — a short proof
Discrete and Continuous Dynamical Systems **38(2)** (2018) 715–722 (doi:10.3934/dcds.2018031).
(with N. H. Risebro)
- [112] An improvement of the Kolmogorov–Riesz compactness theorem
Expositiones Mathematicae **37** (2019) 84–91 (doi: 10.1016/j.exmath.2018.03.002).
(with H. Hanche-Olsen and E. Malinnikova)
- [113] Follow-the-Leader models can be viewed as a numerical approximation
to the Lighthill–Whitham–Richards model for traffic flow
Networks & Heterogeneous Media **13(3)** (2018) 409–421. (doi: 10.3934/nhm.2018018)
(with N. H. Risebro)
- [114] Models for dense multilane vehicular traffic
SIAM Journal on Mathematical Analysis **51** (5) (2019) 3694–3713.
(with N. H. Risebro)
- [115] A Lipschitz metric for the Camassa–Holm equation
arXiv:1904.02552, submitted
(with J. A. Carrillo, K. Grunert)
- [116] On the microscopic modeling of vehicular traffic on general networks
Preprint, submitted.
(with R. M. Colombo and F. Marcellini)

(iv) Publications in proceedings of conferences

- [1] On absence of diffusion for low energy for a random Schrödinger operator on $L^2(\mathbf{R}^{\nu})$
Physica **124A** (1984) 413–418
(with F. Martinelli)
- [2] Some exactly solvable models in quantum mechanics and the low energy expansion
In *Proceedings of the Second International Conference on Operator Algebras, Ideals,
and Their Applications in Theoretical Physics, Leipzig 1983*
Edited by H. Baumgärtel, G. Laßner, A. Pietsch, A. Uhlmann
Teubner, Leipzig 1984, pp. 12–28

- (with S. Albeverio, F. Gesztesy, R. Høegh-Krohn)
- [3] Lifshitz singularity of the integrated density of states and absence of diffusion near the bottom of the spectrum for a random Hamiltonian
 In *Chaotic Behavior in Quantum Systems: Theory and Applications*
 Edited by G. Casati
 Plenum Press, New York-London 1985, pp. 77–83
 (with F. Martinelli)
 - [4] Markov cosurfaces and gauge fields
 In *Stochastic Methods and Computer Techniques in Quantum Dynamics*
Acta Physica Austriaca, Supplementum XXVI
 Edited by H. Mitter, L. Pittner
 Springer-Verlag, Wien-New York 1984, pp. 211–231
 (with S. Albeverio, R. Høegh-Krohn)
 - [5] Markov processes on infinite dimensional spaces, Markov fields and Markov cosurfaces
 In *Stochastic Space-Time Models and Limit Theorems*
 Edited by L. Arnold, P. Kotelenetz
 Reidel, Dordrecht-Boston-Lancaster 1984, pp. 11–40
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 - [6] Stochastic Lie group-valued measures and their relations to stochastic curve integrals, gauge fields and Markov cosurfaces
 In *Stochastic Processes — Mathematics and Physics, Proceedings Bielefeld 1984*
 Edited by S. Albeverio, P. Blanchard, L. Streit
 Lecture Notes in Mathematics, Volume 1158
 Springer-Verlag, Berlin-Heidelberg-New York-Tokyo 1986, pp. 1–24
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 In *Stochastic Processes in Classical and Quantum Systems. Proceedings, Ascona, Switzerland 1985*
 Edited by S. Albeverio, G. Casati, D. Merlini
 Lecture Notes in Physics, Volume 262
 Springer-Verlag, Berlin-Heidelberg-New York 1986, pp. 1–13
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(viii) Addendum

**Non-Linear Partial Differential Equations, Mathematical Physics,
and Stochastic Analysis. The Helge Holden Anniversary Volume**

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