Ansgar JÃ¼ngel

List of Publications by Year
in descending order

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207 papers	4,405 citations	117625 34 h-index	155660 55 g-index
218 all docs	218 docs citations	218 times ranked	1242 citing authors

#	Article	IF	Citations
1	Entropy Dissipation Methods for Degenerate ParabolicProblems and Generalized Sobolev Inequalities. Monatshefte Fur Mathematik, 2001, 133, 1-82.	0.9	280
2	Quasi-hydrodynamic Semiconductor Equations. , 2001, , .		197
3	Transport Equations for Semiconductors. Lecture Notes in Physics, 2009, , .	0.7	166
4	Analysis of a Multidimensional Parabolic Population Model with Strong Cross-Diffusion. SIAM Journal on Mathematical Analysis, 2004, 36, 301-322.	1.9	130
5	The boundedness-by-entropy method for cross-diffusion systems. Nonlinearity, 2015, 28, 1963-2001.	1.4	125
6	Analysis of a parabolic cross-diffusion population model without self-diffusion. Journal of Differential Equations, 2006, 224, 39-59.	2.2	119
7	Global Weak Solutions to Compressible Navierâ€“Stokes Equations for Quantum Fluids. SIAM Journal on Mathematical Analysis, 2010, 42, 1025-1045.	1.9	109
8	Semi-discretization in time and numerical convergence of solutions of a nonlinear cross-diffusion population model. Numerische Mathematik, 2003, 93, 655-673.	1.9	82
9	Entropy Methods for Diffusive Partial Differential Equations. SpringerBriefs in Mathematics, 2016, , .	0.3	81
10	A system of parabolic equations in nonequilibrium thermodynamics including thermal and electrical effects. Journal Des Mathematiques Pures Et Appliquees, 1997, 76, 991-1015.	1.6	78
11	Global Nonnegative Solutions of a Nonlinear Fourth-Order Parabolic Equation for Quantum Systems. SIAM Journal on Mathematical Analysis, 2000, 32, 760-777.	1.9	74
12	Compact families of piecewise constant functions in. Nonlinear Analysis: Theory, Methods & Applications, 2012, 75, 3072-3077.	1.1	74
13	Global smooth solutions to the multi-dimensional hydrodynamic model for two-carrier plasmas. Journal of Differential Equations, 2003, 190, 663-685.	2.2	72
14	The Derridaâ€“Lebowitzâ€“Speerâ€“Spohn Equation: Existence, NonUniqueness, and Decay Rates of the Solutions. SIAM Journal on Mathematical Analysis, 2008, 39, 1996-2015.	1.9	70
15	A Positivity-Preserving Numerical Scheme for a Nonlinear Fourth Order Parabolic System. SIAM Journal on Numerical Analysis, 2001, 39, 385-406.	2.3	68
16	A hierarchy of hydrodynamic models for plasmas zero-relaxation-time limits. Communications in Partial Differential Equations, 1999, 24, 1007-1033.	2.2	65
17	ViennaCL---Linear Algebra Library for Multi- and Many-Core Architectures. SIAM Journal of Scientific Computing, 2016, 38, S412-S439.	2.8	64
18	Existence Analysis of Maxwell--Stefan Systems for Multicomponent Mixtures. SIAM Journal on Mathematical Analysis, 2013, 45, 2421-2440.	1.9	59

#	Article	IF	Citations
19	High Order Compact Finite Difference Schemes for a Nonlinear Black-Scholes Equation. International Journal of Theoretical and Applied Finance, 2003, 06, 767-789.	0.5	58
20	Quantum Euler-Poisson systems: global existence and exponential decay. Quarterly of Applied Mathematics, 2004, 62, 569-600.	0.7	57
21	A steady-state system in non-equilibrium thermodynamics including thermal and electrical effects. Mathematical Methods in the Applied Sciences, 1998, 21, 1399-1413.	2.3	55
22	Cross Diffusion Preventing Blow-Up in the Two-Dimensional Kellerâ€“Segel Model. SIAM Journal on Mathematical Analysis, 2011, 43, 997-1022.	1.9	54
23	Numerical Discretization of Energy-Transport Models for Semiconductors with Nonparabolic Band Structure. SIAM Journal of Scientific Computing, 2000, 22, 986-1007.	2.8	53
24	QUALITATIVE BEHAVIOR OF SOLUTIONS OF A DEGENERATE NONLINEAR DRIFT-DIFFUSION MODEL FOR SEMICONDUCTORS. Mathematical Models and Methods in Applied Sciences, 1995, 05, 497-518.	3.3	52
25	Derivation of New Quantum Hydrodynamic Equations Using Entropy Minimization. SIAM Journal on Applied Mathematics, 2006, 67, 46-68.	1.8	50
26	A Note on Aubin-Lions-DubinskiÄ-Lemmas. Acta Applicandae Mathematicae, 2014, 133, 33-43.	1.0	50
27	A Steady-State Quantum Euler-Poisson System for Potential Flows. Communications in Mathematical Physics, 1998, 194, 463-479.	2.2	48
28	Analysis of the viscous quantum hydrodynamic equations for semiconductors. European Journal of Applied Mathematics, 2004, 15, 577-595.	2.9	47
29	An algorithmic construction of entropies in higher-order nonlinear PDEs. Nonlinearity, 2006, 19, 633-659.	1.4	47
30	Convergence of a high-order compact finite difference scheme for a nonlinear Blackâ€“Scholes equation. ESAIM: Mathematical Modelling and Numerical Analysis, 2004, 38, 359-369.	1.9	44
31	Positive Solutions to Singular Second and Third Order Differential Equations for Quantum Fluids. Archive for Rational Mechanics and Analysis, 2001, 156, 183-203.	2.4	41
32	ON THE EXISTENCE AND UNIQUENESS OF TRANSIENT SOLUTIONS OF A DEGENERATE NONLINEAR DRIFT-DIFFUSION MODEL FOR SEMICONDUCTORS. Mathematical Models and Methods in Applied Sciences, 1994, 04, 677-703.	3.3	38
33	LOCAL EXISTENCE OF SOLUTIONS TO THE TRANSIENT QUANTUM HYDRODYNAMIC EQUATIONS. Mathematical Models and Methods in Applied Sciences, 2002, 12, 485-495.	3.3	38
34	Global Existence Analysis of Cross-Diffusion Population Systems for Multiple Species. Archive for Rational Mechanics and Analysis, 2018, 227, 715-747.	2.4	38
35	Analysis of an Incompressible Navierâ€“Stokesâ€“Maxwellâ€“Stefan System. Communications in Mathematical Physics, 2015, 340, 471-497.	2.2	35
36	Analysis of degenerate cross-diffusion population models with volume filling. Annales De L'Institut Henri Poincare (C) Analyse Non Lineaire, 2017, 34, 1-29.	1.4	33

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37	A finite volume scheme for a Keller-Segel model with additional cross-diffusion. IMA Journal of Numerical Analysis, 2014, 34, 96-122.	2.9	31
38	The relaxation-time limit in the quantum hydrodynamic equations for semiconductors. Journal of Differential Equations, 2006, 225, 440-464.	2.2	30
39	A Discretization Scheme for a Quasi-Hydrodynamic Semiconductor Model. Mathematical Models and Methods in Applied Sciences, 1997, 07, 935-955.	3.3	29
40	Global existence of solutions to one-dimensional viscous quantum hydrodynamic equations. Journal of Differential Equations, 2009, 247, 3117-3135.	2.2	29
41	CROSS DIFFUSION AND NONLINEAR DIFFUSION PREVENTING BLOW UP IN THE KELLERâ€“SEGEL MODEL. Mathematical Models and Methods in Applied Sciences, 2012, 22, .	3.3	29
42	Symmetrization and entropy inequality for general diffusion equations. Comptes Rendus Mathematique, 1997, 325, 963-968.	0.5	28
43	Regularity and uniqueness of solutions to a parabolic system in nonequilibrium thermodynamics. Nonlinear Analysis: Theory, Methods & Applications, 2000, 41, 669-688.	1.1	28
44	Analysis of a Parabolic Cross-Diffusion Semiconductor Model with Electron-Hole Scattering. Communications in Partial Differential Equations, 2007, 32, 127-148.	2.2	28
45	Nonlinear problems in quantum semiconductor modeling. Nonlinear Analysis: Theory, Methods & Applications, 2001, 47, 5873-5884.	1.1	27
46	A Nonlinear Fourthâ€order Parabolic Equation with Nonhomogeneous Boundary Conditions. SIAM Journal on Mathematical Analysis, 2006, 37, 1761-1779.	1.9	27
47	Numerical approximation of the viscous quantum hydrodynamic model for semiconductors. Applied Numerical Mathematics, 2006, 56, 899-915.	2.1	27
48	On the feasibility of spherical harmonics expansions of the Boltzmann transport equation for three-dimensional device geometries. , 2011, , .		27
49	Physical and numerical viscosity for quantum hydrodynamics. Communications in Mathematical Sciences, 2007, 5, 447-471.	1.0	27
50	A hierarchy of hydrodynamic models for plasmas. Zero-electron-mass limits in the drift-diffusion equations. Annales De L'Institut Henri Poincare (C) Analyse Non Lineaire, 2000, 17, 83-118.	1.4	26
51	On a quasilinear degenerate system arising in semiconductors theory. Part I: Existence and uniqueness of solutions. Nonlinear Analysis: Real World Applications, 2001, 2, 305-336.	1.7	26
52	Exponential decay in time of solutions of the viscous quantum hydrodynamic equations. Applied Mathematics Letters, 2003, 16, 1273-1278.	2.7	26
53	A Mixed Finite-Element Discretization of the Energy-Transport Model for Semiconductors. SIAM Journal of Scientific Computing, 2003, 24, 2058-2075.	2.8	26
54	Full compressible Navier-Stokes equations for quantum fluids: Derivation and numerical solution. Kinetic and Related Models, 2011, 4, 785-807.	0.9	26

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55	Convergent semidiscretization of a nonlinear fourth order parabolic system. ESAIM: Mathematical Modelling and Numerical Analysis, 2003, 37, 277-289.	1.9	24
56	The zero-electron-mass limit in the hydrodynamic model for plasmas. Nonlinear Analysis: Theory, Methods & Applications, 2010, 72, 4415-4427.	1.1	24
57	Transient SchrÃ¶dingerâ€“Poisson simulations of a high-frequency resonant tunneling diode oscillator. Journal of Computational Physics, 2013, 239, 187-205.	3.8	24
58	A Parabolic Cross-Diffusion System for Granular Materials. SIAM Journal on Mathematical Analysis, 2003, 35, 561-578.	1.9	23
59	A Nonlinear Drift â€•Diffusion System with Electric Convection Arising in Electrophoretic and Semiconductor Modeling. Mathematische Nachrichten, 1997, 185, 85-110.	0.8	22
60	Inviscid LimitsÂ¶of the Complex Ginzburgâ€“Landau Equation. Communications in Mathematical Physics, 2000, 214, 201-226.	2.2	22
61	Diffusive and nondiffusive population models. Modeling and Simulation in Science, Engineering and Technology, 2010, , 397-425.	0.6	22
62	A logarithmic fourth-order parabolic equation and related logarithmic Sobolev inequalities. Communications in Mathematical Sciences, 2006, 4, 275-290.	1.0	22
63	Subsonic Solutions to a One-Dimensional Non-isentropic Hydrodynamic Model for Semiconductors. Journal of Mathematical Analysis and Applications, 2001, 258, 52-62.	1.0	21
64	Convergence of Nonlinear SchrÃ¶dingerâ€“Poisson Systems to the Compressible Euler Equations. Communications in Partial Differential Equations, 2003, 28, 1005-1022.	2.2	20
65	Semiconductor Simulations Using a Coupled Quantum Driftâ€Diffusion SchrÃ¶dingerâ€“Poisson Model. SIAM Journal on Applied Mathematics, 2005, 66, 554-572.	1.8	20
66	A review of recent advances in the spherical harmonics expansion method for semiconductor device simulation. Journal of Computational Electronics, 2016, 15, 939-958.	2.5	20
67	Hypocoercivity for a Linearized Multispecies Boltzmann System. SIAM Journal on Mathematical Analysis, 2016, 48, 538-568.	1.9	20
68	ENTROPY STRUCTURE OF A CROSS-DIFFUSION TUMOR-GROWTH MODEL. Mathematical Models and Methods in Applied Sciences, 2012, 22, 1250009.	3.3	19
69	A Sixth-Order Nonlinear Parabolic Equation for Quantum Systems. SIAM Journal on Mathematical Analysis, 2009, 41, 1472-1490.	1.9	18
70	BLOW-UP IN TWO-COMPONENT NONLINEAR SCHRÃ–DINGER SYSTEMS WITH AN EXTERNAL DRIVEN FIELD. Mathematical Models and Methods in Applied Sciences, 2013, 23, 1699-1727.	3.3	18
71	An Asymptotic Limit of a Navierâ€“Stokes System with Capillary Effects. Communications in Mathematical Physics, 2014, 329, 725-744.	2.2	18
72	Entropy-dissipative discretization of nonlinear diffusion equations and discrete Beckner inequalities. ESAIM: Mathematical Modelling and Numerical Analysis, 2016, 50, 135-162.	1.9	18

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73	Entropy-energy inequalities and improved convergence rates for nonlinear parabolic equations. Discrete and Continuous Dynamical Systems - Series B, 2006, 6, 1027-1050.	0.9	18
74	Rigorous mean-field limit and cross-diffusion. Zeitschrift Fur Angewandte Mathematik Und Physik, 2019, 70, 1.	1.4	17
75	Energy transport in semiconductor devices. Mathematical and Computer Modelling of Dynamical Systems, 2010, 16, 1-22.	2.2	16
76	Convex Sobolev Inequalities Derived from Entropy Dissipation. Archive for Rational Mechanics and Analysis, 2011, 199, 563-596.	2.4	16
77	Flatness of Semilinear Parabolic PDEsâ€"A Generalized Cauchyâ€"Kowalevski Approach. IEEE Transactions on Automatic Control, 2013, 58, 2277-2291.	5.7	16
78	Asymptotic Analysis of a Semiconductor Model Based on Fermi-Dirac Statistics. Mathematical Methods in the Applied Sciences, 1996, 19, 401-424.	2.3	15
79	Discrete minimum and maximum principles for finite element approximations of non-monotone elliptic equations. Numerische Mathematik, 2005, 99, 485-508.	1.9	15
80	ASYMPTOTIC LIMITS FOR QUANTUM TRAJECTORY MODELS. Communications in Partial Differential Equations, 2002, 27, 669-691.	2.2	14
81	A relaxation scheme for the hydrodynamic equations forÂsemiconductors. Applied Numerical Mathematics, 2002, 43, 229-252.	2.1	14
82	Perfectly Matched Layers versus discrete transparent boundary conditions in quantum device simulations. Journal of Computational Physics, 2014, 275, 1-24.	3.8	14
83	First-order entropies for the Derrida-Lebowitz-Speer-Spohn equation. Discrete and Continuous Dynamical Systems - Series B, 2007, 8, 861-877.	0.9	14
84	An Adaptive Mixed Scheme for Energy-Transport Simulations of Field-Effect Transistors. SIAM Journal of Scientific Computing, 2004, 25, 1698-1716.	2.8	13
85	A Hierarchy of Diffusive Higher-Order Moment Equations for Semiconductors. SIAM Journal on Applied Mathematics, 2007, 68, 171-198.	1.8	13
86	Numerical Coupling of Electric Circuit Equations and Energy-Transport Models for Semiconductors. SIAM Journal of Scientific Computing, 2008, 30, 873-894.	2.8	13
87	Matrix compression for spherical harmonics expansions of the Boltzmann transport equation for semiconductors. Journal of Computational Physics, 2010, 229, 8750-8765.	3.8	13
88	Effective velocity in compressible Navierâ€"Stokes equations with third-order derivatives. Nonlinear Analysis: Theory, Methods & Applications, 2011, 74, 2813-2818.	1.1	13
89	Finiteâ€volume scheme for a degenerate crossâ€diffusion model motivated from ion transport. Numerical Methods for Partial Differential Equations, 2019, 35, 545-575.	3.6	13
90	Weakâ€"strong uniqueness of renormalized solutions to reactionâ€"cross-diffusion systems. Mathematical Models and Methods in Applied Sciences, 2019, 29, 237-270.	3.3	13

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91	On a quasilinear degenerate system arising in semiconductor theory. Part II: Localization of vacuum solutions. Nonlinear Analysis: Theory, Methods & Applications, 1999, 36, 569-594.	1.1	12
92	Entropy-stable and entropy-dissipative approximations of a fourth-order quantum diffusion equation. Numerische Mathematik, 2014, 127, 365-396.	1.9	12
93	Pipelined Iterative Solvers with Kernel Fusion for Graphics Processing Units. ACM Transactions on Mathematical Software, 2017, 43, 1-27.	2.9	12
94	Analysis of a degenerate parabolic cross-diffusion system for ion transport. Journal of Mathematical Analysis and Applications, 2018, 461, 523-543.	1.0	12
95	Existence and uniqueness of solutions to a quasilinear parabolic equation with quadratic gradients in financial markets. Nonlinear Analysis: Theory, Methods & Applications, 2005, 62, 519-544.	1.1	11
96	A note on the uniqueness of weak solutions to a class of cross-diffusion systems. Journal of Evolution Equations, 2018, 18, 805-820.	1.1	11
97	A kinetic equation for economic value estimation with irrationality and herding. Kinetic and Related Models, 2017, 10, 239-261.	0.9	11
98	A Three-Dimensional Mixed Finite-Element Approximation of the Semiconductor Energy-Transport Equations. SIAM Journal of Scientific Computing, 2009, 31, 1120-1140.	2.8	10
99	A New Derivation of the Quantum Navierâ€“Stokes Equations in the Wignerâ€“Fokkerâ€“Planck Approach. Journal of Statistical Physics, 2011, 145, 1661-1673.	1.2	10
100	A multidimensional nonlinear sixth-order quantum diffusion equation. Annales De L'Institut Henri Poincare (C) Analyse Non Lineaire, 2013, 30, 337-365.	1.4	10
101	Existence analysis for a simplified transient energyâ€transport model for semiconductors. Mathematical Methods in the Applied Sciences, 2013, 36, 1701-1712.	2.3	10
102	Global existence analysis for degenerate energy-transport models for semiconductors. Journal of Differential Equations, 2015, 258, 2339-2363.	2.2	10
103	Global martingale solutions for a stochastic population cross-diffusion system. Stochastic Processes and Their Applications, 2019, 129, 3792-3820.	0.9	10
104	Entropy-dissipating semi-discrete Rungeâ€“Kutta schemes for nonlinear diffusion equations. Communications in Mathematical Sciences, 2017, 15, 27-53.	1.0	10
105	Adaptive variable-order spherical harmonics expansion of the Boltzmann Transport Equation. , 2011, , .		9
106	A finite-volume scheme for the multidimensional quantum drift-diffusion model for semiconductors. Numerical Methods for Partial Differential Equations, 2011, 27, 1483-1510.	3.6	9
107	Convergence of an implicit Euler Galerkin scheme for Poissonâ€“Maxwellâ€“Stefan systems. Advances in Computational Mathematics, 2019, 45, 1469-1498.	1.6	9
108	Positive entropic schemes for a nonlinear fourth-order parabolic equation. Discrete and Continuous Dynamical Systems - Series B, 2003, 3, 1-20.	0.9	9

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109	Two spinorial drift-diffusion models for quantum electron transport in graphene. Communications in Mathematical Sciences, 2013, 11, 807-830.	1.0	9
110	Entropy dissipative oneâ€leg multistep time approximations of nonlinear diffusive equations. Numerical Methods for Partial Differential Equations, 2015, 31, 1119-1149.	3.6	8
111	Bounded weak solutions to a matrix driftâ€“diffusion model for spin-coherent electron transport in semiconductors. Mathematical Models and Methods in Applied Sciences, 2015, 25, 929-958.	3.3	8
112	High-friction limits of Euler flows for multicomponent systems. Nonlinearity, 2019, 32, 2875-2913.	1.4	8
113	Exponential Time Decay of Solutions to Reaction-Cross-Diffusion Systems of Maxwellâ€“Stefan Type. Archive for Rational Mechanics and Analysis, 2020, 235, 1059-1104.	2.4	8
114	Asymptotic stability of a boundary layer to the Euler--Poisson equations for a multicomponent plasma. Kinetic and Related Models, 2016, 9, 587-603.	0.9	8
115	A Nonstiff Euler Discretization of the Complex Ginzburg--Landau Equation in One Space Dimension. SIAM Journal on Numerical Analysis, 2000, 38, 292-328.	2.3	7
116	Diffusive semiconductor moment equations using Fermiâ€“Dirac statistics. Zeitschrift Fur Angewandte Mathematik Und Physik, 2011, 62, 623-639.	1.4	7
117	Qualitative behavior of solutions to cross-diffusion systems from population dynamics. Journal of Mathematical Analysis and Applications, 2016, 440, 794-809.	1.0	7
118	Discrete Beckner inequalities via the Bochnerâ€“Bakryâ€“Emery approach for Markov chains. Annals of Applied Probability, 2017, 27, .	1.3	7
119	Existence Analysis of a Single-Phase Flow Mixture with van der Waals Pressure. SIAM Journal on Mathematical Analysis, 2018, 50, 1367-1395.	1.9	7
120	Stationary equations for charge carriers in semiconductors including electron-hole scattering. Applicable Analysis, 1996, 62, 53-69.	1.3	6
121	An existence and uniqueness result for the stationary energy-transport model in semiconductor theory. Comptes Rendus Mathematique, 1997, 324, 867-872.	0.5	6
122	Self-heating in a coupled thermo-electric circuit-device model. Journal of Computational Electronics, 2011, 10, 163-178.	2.5	6
123	Inclusion of carrier-carrier-scattering into arbitrary-order spherical harmonics expansions of the Boltzmann transport equation. , 2012, , .		6
124	A finite-volume scheme for a spinorial matrix drift-diffusion model for semiconductors. Numerical Methods for Partial Differential Equations, 2016, 32, 819-846.	3.6	6
125	Analysis of a coupled spin driftâ€“diffusion Maxwellâ€“Landauâ€“Lifshitz system. Journal of Differential Equations, 2016, 260, 6828-6854.	2.2	6
126	A meeting point of entropy and bifurcations in cross-diffusion herding. European Journal of Applied Mathematics, 2017, 28, 317-356.	2.9	6

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127	A structure-preserving discontinuous Galerkin scheme for the Fisherâ€“KPP equation. Numerische Mathematik, 2020, 146, 119-157.	1.9	6
128	Analysis of Cross-Diffusion Systems for Fluid Mixtures Driven by a Pressure Gradient. SIAM Journal on Mathematical Analysis, 2020, 52, 2179-2197.	1.9	6
129	When do cross-diffusion systems have an entropy structure?. Journal of Differential Equations, 2021, 278, 60-72.	2.2	6
130	Rigorous Derivation of Population Cross-Diffusion Systems from Moderately Interacting Particle Systems. Journal of Nonlinear Science, 2021, 31, 1.	2.1	6
131	Convergence of an entropic semi-discretization for nonlinear Fokker-Planck equations in $mathbb{R}^d$. Publicacions Matematiques, 2008, 52, 413-433.	0.5	6
132	Nonlocal cross-diffusion systems for multi-species populations and networks. Nonlinear Analysis: Theory, Methods & Applications, 2022, 219, 112800.	1.1	6
133	Weak-Strong Uniqueness for Maxwell–Stefan Systems. SIAM Journal on Mathematical Analysis, 2022, 54, 3215-3252.	1.9	6
134	ANALYSIS OF A SPHERICAL HARMONICS EXPANSION MODEL OF PLASMA PHYSICS. Mathematical Models and Methods in Applied Sciences, 2004, 14, 759-774.	3.3	5
135	Time-dependent simulations of quantum waveguides using a time-splitting spectral method. Mathematics and Computers in Simulation, 2010, 81, 883-898.	4.4	5
136	Performance portability study of linear algebra kernels in OpenCL. , 2014, , .		5
137	Global renormalized solutions to reaction-cross-diffusion systems with self-diffusion. Journal of Differential Equations, 2019, 267, 5901-5937.	2.2	5
138	Comparison of a finite-element and finite-volume scheme for a degenerate cross-diffusion system for ion transport. Computational and Applied Mathematics, 2019, 38, 1.	2.2	5
139	Cross-diffusion systems and fast-reaction limits. Bulletin Des Sciences Mathematiques, 2020, 159, 102824.	1.0	5
140	Convergence of a finite-volume scheme for a degenerate-singular cross-diffusion system for biofilms. IMA Journal of Numerical Analysis, 2021, 41, 935-973.	2.9	5
141	Multi-Scale Modeling of Quantum Semiconductor Devices. , 2006, , 331-363.		5
142	The free boundary problem of a semiconductor in thermal equilibrium. Mathematical Methods in the Applied Sciences, 1995, 18, 387-412.	2.3	4
143	Space localization and uniqueness of solutions of a quasilinear parabolic system arising in semiconductor theory. Comptes Rendus Mathematique, 1997, 325, 267-272.	0.5	4
144	SIMULATION OF THERMAL EFFECTS IN OPTOELECTRONIC DEVICES USING COUPLED ENERGY-TRANSPORT AND CIRCUIT MODELS. Mathematical Models and Methods in Applied Sciences, 2008, 18, 2125-2150.	3.3	4

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145	Parallel preconditioning for spherical harmonics expansions of the Boltzmann transport equation. , 2011, , .		4
146	A simplified quantum energy-transport model for semiconductors. Nonlinear Analysis: Real World Applications, 2011, 12, 1033-1046.	1.7	4
147	On the Lagrangian structure of quantum fluid models. Discrete and Continuous Dynamical Systems, 2014, 34, 1375-1396.	0.9	4
148	A cross-diffusion system derived from a Fokkerâ€“Planck equation with partial averaging. Zeitschrift Fur Angewandte Mathematik Und Physik, 2017, 68, 1.	1.4	4
149	Corrigendum to â€œAnalysis of degenerate cross-diffusion population models with volume fillingâ€• [Ann. Inst. Henri PoincarÃ© 34 (1) (2017) 1â€“29]. Annales De L'Institut Henri Poincare (C) Analyse Non Lineaire, 2017, 34, 789-792.	1.4	4
150	Vanishing cross-diffusion limit in a Kellerâ€“Segel system with additional cross-diffusion. Nonlinear Analysis: Theory, Methods & Applications, 2020, 192, 111698.	1.1	4
151	A Convergent Structure-Preserving Finite-Volume Scheme for the Shigesada--Kawasaki--Teramoto Population System. SIAM Journal on Numerical Analysis, 2021, 59, 2286-2309.	2.3	4
152	Entropies for radially symmetric higher-order nonlinear diffusion equations. Communications in Mathematical Sciences, 2011, 9, 353-382.	1.0	4
153	A Two-Surface Problem of the Electron Flow in a Semiconductor on the Basis of Kinetic Theory. Journal of Statistical Physics, 2007, 130, 313-342.	1.2	3
154	Analysis of a bipolar energy-transport model for a metal-oxide-semiconductor diode. Journal of Mathematical Analysis and Applications, 2011, 378, 764-774.	1.0	3
155	Cell-centered finite volume schemes for semiconductor device simulation. , 2014, , .		3
156	A Degenerate Fourth-Order Parabolic Equation Modeling Boseâ€“Einstein Condensation. Part I: Local Existence of Solutions. Archive for Rational Mechanics and Analysis, 2015, 217, 935-973.	2.4	3
157	A Degenerate Fourth-Order Parabolic Equation Modeling Bose-Einstein Condensation Part II: Finite-Time Blow-Up. Communications in Partial Differential Equations, 2015, 40, 1748-1786.	2.2	3
158	Energy-transport systems for optical lattices: Derivation, analysis, simulation. Mathematical Models and Methods in Applied Sciences, 2018, 28, 579-614.	3.3	3
159	Homogenization of degenerate cross-diffusion systems. Journal of Differential Equations, 2019, 267, 5543-5575.	2.2	3
160	Two Structure-Preserving Time Discretizations for Gradient Flows. Applied Mathematics and Optimization, 2019, 80, 733-764.	1.6	3
161	A Finite-Volume Scheme for a Cross-Diffusion Model Arising from Interacting Many-Particle Population Systems. Springer Proceedings in Mathematics and Statistics, 2020, , 223-231.	0.2	3
162	Uniform $$L^{infty }$$ Estimates for Approximate Solutions of the Bipolar Drift-Diffusion System. Springer Proceedings in Mathematics and Statistics, 2017, , 381-389.	0.2	3

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163	Drift-Diffusion Equations. Lecture Notes in Physics, 2009, , 1-29.	0.7	3
164	Recent Progress on Quantum Hydrodynamic Models for Semiconductors. , 2003, , 217-226.		3
165	A discrete boundedness-by-entropy method for finite-volume approximations of cross-diffusion systems. IMA Journal of Numerical Analysis, 2023, 43, 560-589.	2.9	3
166	Sequential Quadratic Programming Method forÂVolatility Estimation inÂOptionÂPricing. Journal of Optimization Theory and Applications, 2008, 139, 515-540.	1.5	2
167	Large-time asymptotics of a fractional driftâ€“diffusionâ€“Poisson system via the entropy method. Nonlinear Analysis: Theory, Methods & Applications, 2019, 179, 270-293.	1.1	2
168	Displacement convexity for the entropy in semi-discrete non-linear Fokkerâ€“Planck equations. European Journal of Applied Mathematics, 2019, 30, 1103-1122.	2.9	2
169	Large-time asymptotics for a matrix spin drift-diffusion model. Journal of Mathematical Analysis and Applications, 2020, 486, 123887.	1.0	2
170	Analysis of Maxwellâ€“Stefan systems for heat conducting fluid mixtures. Nonlinear Analysis: Real World Applications, 2021, 59, 103263.	1.7	2
171	Global martingale solutions for quasilinear SPDEs via the boundedness-by-entropy method. Annales De L'institut Henri Poincare (B) Probability and Statistics, 2021, 57, .	1.1	2
172	Cross-Diffusion Systems. SpringerBriefs in Mathematics, 2016, , 69-108.	0.3	2
173	Energy-Transport Equations. Lecture Notes in Physics, 2009, , 1-27.	0.7	2
174	Mixed entropy estimates for the porous-medium equation with convection. Discrete and Continuous Dynamical Systems - Series B, 2009, 12, 783-796.	0.9	2
175	Existence analysis of a stationary compressible fluid model for heat-conducting and chemically reacting mixtures. Journal of Mathematical Physics, 2022, 63, 051501.	1.1	2
176	Non-homogeneous boundary conditions for a fourth-order diffusion equation. Comptes Rendus Mathematique, 2008, 346, 143-148.	0.3	1
177	System matrix compression for spherical harmonics expansions of the Boltzmann transport equation. , 2010, , .		1
178	Flatness-based trajectory planning for semilinear parabolic PDEs. , 2012, , .		1
179	Lyapunov functionals, weak sequential stability, and uniqueness analysis for energy-transport systems. Annali Dell'Universita Di Ferrara, 2012, 58, 89-100.	1.3	1
180	A note on the GPU acceleration of eigenvalue computations. , 2013, , .		1

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