

Pierre Degond

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

282
papers

6,664
citations

41
h-index

67
g-index

291
ext. papers

7,404
ext. citations

2.1
avg, IF

6.09
L-index

| # | Paper | IF | Citations |
|-----|--|------|-----------|
| 282 | Comparing the best-reply strategy and mean-field games: The stationary case. <i>European Journal of Applied Mathematics</i> , 2022 , 33, 79-110 | 1 | |
| 281 | From kinetic to fluid models of liquid crystals by the moment method. <i>Kinetic and Related Models</i> , 2022 , | 2.4 | 0 |
| 280 | A new model for the emergence of blood capillary networks. <i>Networks and Heterogeneous Media</i> , 2021 , 16, 91-138 | 1.6 | |
| 279 | Anteroposterior elongation of the chicken anterior trunk neural tube is hindered by interaction with its surrounding tissues. <i>Cells and Development</i> , 2021 , 203723 | | 0 |
| 278 | A New Continuum Theory for Incompressible Swelling Materials. <i>Multiscale Modeling and Simulation</i> , 2020 , 18, 163-197 | 1.8 | |
| 277 | Nematic alignment of self-propelled particles: From particle to macroscopic dynamics. <i>Mathematical Models and Methods in Applied Sciences</i> , 2020 , 30, 1935-1986 | 3.5 | 5 |
| 276 | Phase Transitions and Macroscopic Limits in a BGK Model of Body-Attitude Coordination. <i>Journal of Nonlinear Science</i> , 2020 , 30, 2671-2736 | 2.8 | 6 |
| 275 | A Fokker-Planck approach to the study of robustness in gene expression. <i>Mathematical Biosciences and Engineering</i> , 2020 , 17, 6459-6486 | 2.1 | 1 |
| 274 | A Markov jump process modelling animal group size statistics. <i>Communications in Mathematical Sciences</i> , 2020 , 18, 55-89 | 1 | |
| 273 | Incompressible limit of a continuum model of tissue growth for two cell populations. <i>Networks and Heterogeneous Media</i> , 2020 , 15, 57-85 | 1.6 | 6 |
| 272 | Modelling pattern formation through differential repulsion. <i>Networks and Heterogeneous Media</i> , 2020 , 15, 307-352 | 1.6 | 3 |
| 271 | Large-Scale Dynamics of Self-propelled Particles Moving Through Obstacles: Model Derivation and Pattern Formation. <i>Bulletin of Mathematical Biology</i> , 2020 , 82, 129 | 2.1 | 2 |
| 270 | Extra-cellular matrix rigidity may dictate the fate of injury outcome. <i>Journal of Theoretical Biology</i> , 2019 , 469, 127-136 | 2.3 | 3 |
| 269 | The architectural design of smart ventilation and drainage systems in termite nests. <i>Science Advances</i> , 2019 , 5, eaat8520 | 14.3 | 22 |
| 268 | Coupled Self-Organized Hydrodynamics and Stokes Models for Suspensions of Active Particles. <i>Journal of Mathematical Fluid Mechanics</i> , 2019 , 21, 1 | 1.4 | 4 |
| 267 | Propagation of chaos for topological interactions. <i>Annals of Applied Probability</i> , 2019 , 29, | 2 | 5 |
| 266 | MATHEMATICAL MODELS OF COLLECTIVE DYNAMICS AND SELF-ORGANIZATION 2019 , | | 2 |

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|-----|---|-----|----|
| 265 | Incompressible limit of a continuum model of tissue growth with segregation for two cell populations. <i>Mathematical Biosciences and Engineering</i> , 2019 , 16, 5804-5835 | 2.1 | 2 |
| 264 | Hydrodynamic limits for kinetic flocking models of Cucker-Smale type. <i>Mathematical Biosciences and Engineering</i> , 2019 , 16, 7883-7910 | 2.1 | 7 |
| 263 | Alignment of Self-propelled Rigid Bodies: From Particle Systems to Macroscopic Equations. <i>Springer Proceedings in Mathematics and Statistics</i> , 2019 , 28-66 | 0.2 | 5 |
| 262 | Interkinetic nuclear movements promote apical expansion in pseudostratified epithelia at the expense of apicobasal elongation. <i>PLoS Computational Biology</i> , 2019 , 15, e1007171 | 5 | 4 |
| 261 | Interkinetic nuclear movements promote apical expansion in pseudostratified epithelia at the expense of apicobasal elongation 2019 , 15, e1007171 | | |
| 260 | Interkinetic nuclear movements promote apical expansion in pseudostratified epithelia at the expense of apicobasal elongation 2019 , 15, e1007171 | | |
| 259 | Interkinetic nuclear movements promote apical expansion in pseudostratified epithelia at the expense of apicobasal elongation 2019 , 15, e1007171 | | |
| 258 | Interkinetic nuclear movements promote apical expansion in pseudostratified epithelia at the expense of apicobasal elongation 2019 , 15, e1007171 | | |
| 257 | Transport of congestion in two-phase compressible/incompressible flows. <i>Nonlinear Analysis: Real World Applications</i> , 2018 , 42, 485-510 | 2.1 | 3 |
| 256 | Quaternions in Collective Dynamics. <i>Multiscale Modeling and Simulation</i> , 2018 , 16, 28-77 | 1.8 | 23 |
| 255 | Particle Interactions Mediated by Dynamical Networks: Assessment of Macroscopic Descriptions. <i>Journal of Nonlinear Science</i> , 2018 , 28, 235-268 | 2.8 | 9 |
| 254 | Finite volume approximations of the Euler system with variable congestion. <i>Computers and Fluids</i> , 2018 , 169, 23-39 | 2.8 | 5 |
| 253 | An age-structured continuum model for myxobacteria. <i>Mathematical Models and Methods in Applied Sciences</i> , 2018 , 28, 1737-1770 | 3.5 | 12 |
| 252 | Modeling crowd dynamics through coarse-grained data analysis. <i>Mathematical Biosciences and Engineering</i> , 2018 , 15, 1271-1290 | 2.1 | 5 |
| 251 | Pedestrian Models Based on Rational Behaviour. <i>Modeling and Simulation in Science, Engineering and Technology</i> , 2018 , 259-292 | 0.8 | 8 |
| 250 | New objective measurements of semen wave motion are associated with fertility in sheep. <i>Reproduction, Fertility and Development</i> , 2018 , 30, 889-896 | 1.8 | 4 |
| 249 | Damped Arrow-Hurwicz algorithm for sphere packing. <i>Journal of Computational Physics</i> , 2017 , 332, 47-65 | 4.1 | 4 |
| 248 | Asymptotic-Preserving methods and multiscale models for plasma physics. <i>Journal of Computational Physics</i> , 2017 , 336, 429-457 | 4.1 | 24 |

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|-----|--|-----|----|
| 247 | An asymptotic-preserving method for a relaxation of the Navier-Stokes-Einstein equations. <i>Journal of Computational Physics</i> , 2017 , 335, 387-403 | 4.1 | 6 |
| 246 | A new flocking model through body attitude coordination. <i>Mathematical Models and Methods in Applied Sciences</i> , 2017 , 27, 1005-1049 | 3.5 | 32 |
| 245 | Simple mechanical cues could explain adipose tissue morphology. <i>Journal of Theoretical Biology</i> , 2017 , 429, 61-81 | 2.3 | 14 |
| 244 | Kinetic Models for Topological Nearest-Neighbor Interactions. <i>Journal of Statistical Physics</i> , 2017 , 169, 929-950 | 1.5 | 8 |
| 243 | Kinetic Theory of Particle Interactions Mediated by Dynamical Networks. <i>Multiscale Modeling and Simulation</i> , 2017 , 15, 1294-1323 | 1.8 | 11 |
| 242 | Coagulation-Fragmentation Model for Animal Group-Size Statistics. <i>Journal of Nonlinear Science</i> , 2017 , 27, 379-424 | 2.8 | 19 |
| 241 | Continuum dynamics of the intention field under weakly cohesive social interaction. <i>Mathematical Models and Methods in Applied Sciences</i> , 2017 , 27, 159-182 | 3.5 | 7 |
| 240 | Asymptotic-Preserving Particle-In-Cell methods for the Vlasov-Maxwell system in the quasi-neutral limit. <i>Journal of Computational Physics</i> , 2017 , 330, 467-492 | 4.1 | 11 |
| 239 | Are Tumor Cell Lineages Solely Shaped by Mechanical Forces?. <i>Bulletin of Mathematical Biology</i> , 2017 , 79, 2356-2393 | 2.1 | 2 |
| 238 | Modelling Tissue Self-Organization: From Micro to Macro Models. <i>Lecture Notes in Computational Science and Engineering</i> , 2017 , 93-108 | 0.3 | 1 |
| 237 | A continuum model for nematic alignment of self-propelled particles. <i>Discrete and Continuous Dynamical Systems - Series B</i> , 2017 , 22, 1295-1327 | 1.3 | 6 |
| 236 | Self-organized hydrodynamics with density-dependent velocity. <i>Kinetic and Related Models</i> , 2017 , 10, 193-213 | 2.4 | 2 |
| 235 | Numerical approximation of a coagulation-fragmentation model for animal group size statistics. <i>Networks and Heterogeneous Media</i> , 2017 , 12, 217-243 | 1.6 | 1 |
| 234 | Mean-field games and model predictive control. <i>Communications in Mathematical Sciences</i> , 2017 , 15, 1403-1422 | 1 | 12 |
| 233 | Phase Transitions in a Kinetic Flocking Model of Cucker-Smale Type. <i>Multiscale Modeling and Simulation</i> , 2016 , 14, 1063-1088 | 1.8 | 33 |
| 232 | On the Asymptotic Limit of the Three Dimensional Vlasov-Boisson System for Large Magnetic Field: Formal Derivation. <i>Journal of Statistical Physics</i> , 2016 , 165, 765-784 | 1.5 | 14 |
| 231 | Topological Interactions in a Boltzmann-Type Framework. <i>Journal of Statistical Physics</i> , 2016 , 163, 41-60 | 1.5 | 11 |
| 230 | Continuum model for linked fibers with alignment interactions. <i>Mathematical Models and Methods in Applied Sciences</i> , 2016 , 26, 269-318 | 3.5 | 10 |

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| 229 | Symmetry-breaking phase transitions in highly concentrated semen. <i>Journal of the Royal Society Interface</i> , 2016 , 13, | 4.1 | 25 |
| 228 | Self-organized hydrodynamics in an annular domain: Modal analysis and nonlinear effects. <i>Mathematical Models and Methods in Applied Sciences</i> , 2015 , 25, 495-519 | 3.5 | 7 |
| 227 | Crouzeix-Raviart MsFEM with Bubble Functions for Diffusion and Advection-Diffusion in Perforated Media. <i>Communications in Computational Physics</i> , 2015 , 17, 887-907 | 2.4 | 8 |
| 226 | Mass sperm motility is associated with fertility in sheep. <i>Animal Reproduction Science</i> , 2015 , 161, 75-81 | 2.1 | 44 |
| 225 | A multi-layer model for self-propelled disks interacting through alignment and volume exclusion. <i>Mathematical Models and Methods in Applied Sciences</i> , 2015 , 25, 2439-2475 | 3.5 | 11 |
| 224 | A Boltzmann model for rod alignment and schooling fish. <i>Nonlinearity</i> , 2015 , 28, 1783-1803 | 1.7 | 8 |
| 223 | Nonconforming Multiscale Finite Element Method for Stokes Flows in Heterogeneous Media. Part I: Methodologies and Numerical Experiments. <i>Multiscale Modeling and Simulation</i> , 2015 , 13, 1146-1172 | 1.8 | 13 |
| 222 | Phase Transitions, Hysteresis, and Hyperbolicity for Self-Organized Alignment Dynamics. <i>Archive for Rational Mechanics and Analysis</i> , 2015 , 216, 63-115 | 2.3 | 43 |
| 221 | Time-delayed follow-the-leader model for pedestrians walking in line. <i>Networks and Heterogeneous Media</i> , 2015 , 10, 579-608 | 1.6 | 7 |
| 220 | Macroscopic models of collective motion with repulsion. <i>Communications in Mathematical Sciences</i> , 2015 , 13, 1615-1638 | 1 | 15 |
| 219 | Evolution of the Distribution of Wealth in an Economic Environment Driven by Local Nash Equilibria. <i>Journal of Statistical Physics</i> , 2014 , 154, 751-780 | 1.5 | 31 |
| 218 | Large-Scale Dynamics of Mean-Field Games Driven by Local Nash Equilibria. <i>Journal of Nonlinear Science</i> , 2014 , 24, 93-115 | 2.8 | 32 |
| 217 | Flow on Sweeping Networks. <i>Multiscale Modeling and Simulation</i> , 2014 , 12, 538-565 | 1.8 | 3 |
| 216 | Evolution of wealth in a non-conservative economy driven by local Nash equilibria. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2014 , 372, | 3 | 21 |
| 215 | Local Stability of Perfect Alignment for a Spatially Homogeneous Kinetic Model. <i>Journal of Statistical Physics</i> , 2014 , 157, 84-112 | 1.5 | 13 |
| 214 | Well-posedness for Hall-magnetohydrodynamics. <i>Annales De L'Institut Henri Poincare (C) Analyse Non Lineaire</i> , 2014 , 31, 555-565 | 1.6 | 126 |
| 213 | Collective dynamics and self-organization: some challenges and an example. <i>ESAIM Proceedings and Surveys</i> , 2014 , 45, 1-7 | 0.9 | 2 |
| 212 | HYDRODYNAMICS OF THE KURAMOTO-VICSEK MODEL OF ROTATING SELF-PROPELLED PARTICLES. <i>Mathematical Models and Methods in Applied Sciences</i> , 2014 , 24, 277-325 | 3.5 | 26 |

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| 211 | Pedestrian Flows: From Individuals to Crowds. <i>Transportation Research Procedia</i> , 2014 , 2, 468-476 | 2.4 | 3 |
| 210 | Phase Appearance or Disappearance in Two-Phase Flows. <i>Journal of Scientific Computing</i> , 2014 , 58, 115-148 | 1.3 | 19 |
| 209 | Phase transition and diffusion among socially interacting self-propelled agents. <i>Discrete and Continuous Dynamical Systems - Series B</i> , 2014 , 19, 1249-1278 | 1.3 | 17 |
| 208 | Experimental Study of the Following Dynamics of Pedestrians 2014 , 305-315 | | 2 |
| 207 | A Macroscopic Model for Bidirectional Pedestrian Flow 2014 , 575-583 | | 0 |
| 206 | A Hierarchy of Heuristic-Based Models of Crowd Dynamics. <i>Journal of Statistical Physics</i> , 2013 , 152, 1033-1068 | 1.68 | 77 |
| 205 | Macroscopic Limits and Phase Transition in a System of Self-propelled Particles. <i>Journal of Nonlinear Science</i> , 2013 , 23, 427-456 | 2.8 | 57 |
| 204 | Self-organized hydrodynamics with congestion and path formation in crowds. <i>Journal of Computational Physics</i> , 2013 , 237, 299-319 | 4.1 | 32 |
| 203 | Trail formation based on directed pheromone deposition. <i>Journal of Mathematical Biology</i> , 2013 , 66, 1267-301 | 2 | 22 |
| 202 | Kinetic hierarchy and propagation of chaos in biological swarm models. <i>Physica D: Nonlinear Phenomena</i> , 2013 , 260, 90-111 | 3.3 | 18 |
| 201 | KINETIC LIMITS FOR PAIR-INTERACTION DRIVEN MASTER EQUATIONS AND BIOLOGICAL SWARM MODELS. <i>Mathematical Models and Methods in Applied Sciences</i> , 2013 , 23, 1339-1376 | 3.5 | 27 |
| 200 | Vision-based macroscopic pedestrian models. <i>Kinetic and Related Models</i> , 2013 , 6, 809-839 | 2.4 | 39 |
| 199 | Hydrodynamic models of self-organized dynamics: Derivation and existence theory. <i>Methods and Applications of Analysis</i> , 2013 , 20, 89-114 | 0.3 | 35 |
| 198 | Numerical approximation of the Euler-Maxwell model in the quasineutral limit. <i>Journal of Computational Physics</i> , 2012 , 231, 1917-1946 | 4.1 | 31 |
| 197 | Fluid simulations with localized boltzmann upscaling by direct simulation Monte-Carlo. <i>Journal of Computational Physics</i> , 2012 , 231, 2414-2437 | 4.1 | 19 |
| 196 | An asymptotic-preserving method for highly anisotropic elliptic equations based on a Micro-Macro decomposition. <i>Journal of Computational Physics</i> , 2012 , 231, 2724-2740 | 4.1 | 31 |
| 195 | Realistic following behaviors for crowd simulation. <i>Computer Graphics Forum</i> , 2012 , 31, 489-498 | 2.4 | 78 |
| 194 | An Asymptotic-Preserving all-speed scheme for the Euler and Navier-Stokes equations. <i>Journal of Computational Physics</i> , 2012 , 231, 5685-5704 | 4.1 | 91 |

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| 193 | Numerical Approximation of the Euler-Poisson-Boltzmann Model in the Quasineutral Limit. <i>Journal of Scientific Computing</i> , 2012 , 51, 59-86 | 2.3 | 11 |
| 192 | Traffic instabilities in self-organized pedestrian crowds. <i>PLoS Computational Biology</i> , 2012 , 8, e1002442 | 5 | 137 |
| 191 | HYDRODYNAMICS OF SELF-ALIGNMENT INTERACTIONS WITH PRECESSION AND DERIVATION OF THE LANDAU-LIFSHITZ-GILBERT EQUATION. <i>Mathematical Models and Methods in Applied Sciences</i> , 2012 , 22, 1140001 | 3.5 | 19 |
| 190 | Degenerate Anisotropic Elliptic Problems and Magnetized Plasma Simulations. <i>Communications in Computational Physics</i> , 2012 , 11, 147-178 | 2.4 | 4 |
| 189 | Duality-based asymptotic-preserving method for highly anisotropic diffusion equations. <i>Communications in Mathematical Sciences</i> , 2012 , 10, 1-31 | 1 | 20 |
| 188 | Hybrid model for the Coupling of an Asymptotic Preserving scheme with the Asymptotic Limit model: The One Dimensional Case. <i>ESAIM: Proceedings and Surveys</i> , 2011 , 32, 23-30 | | 2 |
| 187 | All Speed Scheme for the Low Mach Number Limit of the Isentropic Euler Equations. <i>Communications in Computational Physics</i> , 2011 , 10, 1-31 | 2.4 | 89 |
| 186 | Numerical simulations of the Euler system with congestion constraint. <i>Journal of Computational Physics</i> , 2011 , 230, 8057-8088 | 4.1 | 24 |
| 185 | A Macroscopic Model for a System of Swarming Agents Using Curvature Control. <i>Journal of Statistical Physics</i> , 2011 , 143, 685-714 | 1.5 | 22 |
| 184 | The moment-guided Monte Carlo method. <i>International Journal for Numerical Methods in Fluids</i> , 2011 , 67, 189-213 | 1.9 | 40 |
| 183 | A hierarchy of models related to nanoflows and surface diffusion. <i>Kinetic and Related Models</i> , 2011 , 4, 53-85 | 2.4 | 7 |
| 182 | Kinetic formulation and global existence for the Hall-Magneto-hydrodynamics system. <i>Kinetic and Related Models</i> , 2011 , 4, 901-918 | 2.4 | 129 |
| 181 | Asymptotic-preserving scheme for a bi-fluid Euler-Lorentz model. <i>Kinetic and Related Models</i> , 2011 , 4, 991-1023 | 2.4 | 7 |
| 180 | Two-way multi-lane traffic model for pedestrians in corridors. <i>Networks and Heterogeneous Media</i> , 2011 , 6, 351-381 | 1.6 | 38 |
| 179 | DIFFUSION IN A CONTINUUM MODEL OF SELF-PROPELLED PARTICLES WITH ALIGNMENT INTERACTION. <i>Mathematical Models and Methods in Applied Sciences</i> , 2010 , 20, 1459-1490 | 3.5 | 33 |
| 178 | An Asymptotic Preserving Scheme for Strongly Anisotropic Elliptic Problems. <i>Multiscale Modeling and Simulation</i> , 2010 , 8, 645-666 | 1.8 | 30 |
| 177 | Congestion in a Macroscopic Model of Self-driven Particles Modeling Gregariousness. <i>Journal of Statistical Physics</i> , 2010 , 138, 85-125 | 1.5 | 16 |
| 176 | A multiscale kinetic-fluid solver with dynamic localization of kinetic effects. <i>Journal of Computational Physics</i> , 2010 , 229, 4907-4933 | 4.1 | 55 |

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| 175 | Asymptotic-Preserving Particle-In-Cell method for the Vlasov-Boisson system near quasineutrality. <i>Journal of Computational Physics</i> , 2010 , 229, 5630-5652 | 4.1 | 41 |
| 174 | Kinetic models for dilute solutions of dumbbells in non-homogeneous flows revisited. <i>Journal of Non-Newtonian Fluid Mechanics</i> , 2010 , 165, 509-518 | 2.7 | 3 |
| 173 | Analogies Between Social Interaction Models and Supply Chains. <i>Mathematics in Industry</i> , 2010 , 535-540 | 0.2 | |
| 172 | An Asymptotically Stable Semi-Lagrangian scheme in the Quasi-neutral Limit. <i>Journal of Scientific Computing</i> , 2009 , 41, 341-365 | 2.3 | 17 |
| 171 | An Asymptotic Preserving scheme for the Euler equations in a strong magnetic field. <i>Journal of Computational Physics</i> , 2009 , 228, 3540-3558 | 4.1 | 33 |
| 170 | A strong ionization model in plasma physics. <i>Mathematical and Computer Modelling</i> , 2009 , 49, 88-113 | | 3 |
| 169 | Kinetic models for polymers with inertial effects. <i>Networks and Heterogeneous Media</i> , 2009 , 4, 625-647 | 1.6 | 23 |
| 168 | Numerical Simulations of Rarefied Gases in Curved Channels: Thermal Creep, Circulating Flow, and Pumping Effect. <i>Communications in Computational Physics</i> , 2009 , 6, 919-954 | 2.4 | 37 |
| 167 | Discontinuous Galerkin method applied to electromagnetic compatibility problems: introduction of thin wire and thin resistive material models. <i>IET Science, Measurement and Technology</i> , 2008 , 2, 395-401 | 1.5 | 6 |
| 166 | Modelling wire-to-wire corona discharge action on aerodynamics and comparison with experiment. <i>Journal Physics D: Applied Physics</i> , 2008 , 41, 035205 | 3 | 24 |
| 165 | A Diffusion Model for Rarefied Flows in Curved Channels. <i>Multiscale Modeling and Simulation</i> , 2008 , 6, 1281-1316 | 1.8 | 23 |
| 164 | Analysis of an Asymptotic Preserving Scheme for the Euler-Boisson System in the Quasineutral Limit. <i>SIAM Journal on Numerical Analysis</i> , 2008 , 46, 1298-1322 | 2.4 | 28 |
| 163 | On the Time Splitting Spectral Method for the Complex Ginzburg-Landau Equation in the Large Time and Space Scale Limit. <i>SIAM Journal of Scientific Computing</i> , 2008 , 30, 2466-2487 | 2.6 | 23 |
| 162 | CONTINUUM LIMIT OF SELF-DRIVEN PARTICLES WITH ORIENTATION INTERACTION. <i>Mathematical Models and Methods in Applied Sciences</i> , 2008 , 18, 1193-1215 | 3.5 | 217 |
| 161 | Modelling and simulation of vehicular traffic jam formation. <i>Kinetic and Related Models</i> , 2008 , 1, 279-293 | 2.4 | 29 |
| 160 | A TRAFFIC-FLOW MODEL WITH CONSTRAINTS FOR THE MODELING OF TRAFFIC JAMS. <i>Mathematical Models and Methods in Applied Sciences</i> , 2008 , 18, 1269-1298 | 3.5 | 40 |
| 159 | Large Scale Dynamics of the Persistent Turning Walker Model of Fish Behavior. <i>Journal of Statistical Physics</i> , 2008 , 131, 989-1021 | 1.5 | 103 |
| 158 | A Model for the Formation and Evolution of Traffic Jams. <i>Archive for Rational Mechanics and Analysis</i> , 2008 , 187, 185-220 | 2.3 | 96 |

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| 157 | Quantum Diffusion Models Derived from the Entropy Principle. <i>Mathematics in Industry</i> , 2008 , 106-122 | 0.2 | 1 |
| 156 | Quantum Hydrodynamic and Diffusion Models Derived from the Entropy Principle. <i>Lecture Notes in Mathematics</i> , 2008 , 111-168 | 0.4 | 6 |
| 155 | Asymptotic Continuum Models for Plasmas and Disparate Mass Gaseous Binary Mixtures 2007 , 1-62 | | 1 |
| 154 | Numerical simulations of the ionospheric striation model in a non-uniform magnetic field. <i>Computer Physics Communications</i> , 2007 , 176, 75-90 | 4.2 | 5 |
| 153 | An asymptotic preserving scheme for the Schrödinger equation in the semiclassical limit. <i>Comptes Rendus Mathématique</i> , 2007 , 345, 531-536 | 0.4 | 11 |
| 152 | Macroscopic limit of self-driven particles with orientation interaction. <i>Comptes Rendus Mathématique</i> , 2007 , 345, 555-560 | 0.4 | 40 |
| 151 | An entropic quantum drift-diffusion model for electron transport in resonant tunneling diodes. <i>Journal of Computational Physics</i> , 2007 , 221, 226-249 | 4.1 | 24 |
| 150 | An asymptotic preserving scheme for the two-fluid Euler-Poisson model in the quasineutral limit. <i>Journal of Computational Physics</i> , 2007 , 223, 208-234 | 4.1 | 65 |
| 149 | A moving interface method for dynamic kinetic-fluid coupling. <i>Journal of Computational Physics</i> , 2007 , 227, 1176-1208 | 4.1 | 27 |
| 148 | Large Time Dynamics of a Classical System Subject to a Fast Varying Force. <i>Communications in Mathematical Physics</i> , 2007 , 276, 23-49 | 2 | 4 |
| 147 | Quantum corrections to semiclassical transport in nanoscale devices using entropy principles. <i>Journal of Computational Electronics</i> , 2007 , 6, 117-120 | 1.8 | |
| 146 | Simulation of a resonant tunneling diode using an entropic quantum drift-diffusion model. <i>Journal of Computational Electronics</i> , 2007 , 6, 133-136 | 1.8 | 1 |
| 145 | A PLASMA EXPANSION MODEL BASED ON THE FULL EULER-POISSON SYSTEM. <i>Mathematical Models and Methods in Applied Sciences</i> , 2007 , 17, 1129-1158 | 3.5 | 13 |
| 144 | Diffusion models for Knudsen compressors. <i>Physics of Fluids</i> , 2007 , 19, 117103 | 4.4 | 29 |
| 143 | Mathematical models of electrical discharges in air at atmospheric pressure: a derivation from asymptotic analysis. <i>International Journal of Computing Science and Mathematics</i> , 2007 , 1, 58 | 0.8 | 2 |
| 142 | Stochastic Dynamics of Long Supply Chains with Random Breakdowns. <i>SIAM Journal on Applied Mathematics</i> , 2007 , 68, 59-79 | 1.8 | 17 |
| 141 | A Network Model for Supply Chains with Multiple Policies. <i>Multiscale Modeling and Simulation</i> , 2007 , 6, 820-837 | 1.8 | 14 |
| 140 | Isothermal Quantum Hydrodynamics: Derivation, Asymptotic Analysis, and Simulation. <i>Multiscale Modeling and Simulation</i> , 2007 , 6, 246-272 | 1.8 | 16 |

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| 139 | Asymptotic problems for wave-particle interactions: quantum and classical models. <i>Nonlinearity</i> , 2007 , 20, 1677-1720 | 1.7 | 2 |
| 138 | Nonlinear Instability of the Two-Dimensional Striation Model About Smooth Steady States. <i>Communications in Partial Differential Equations</i> , 2007 , 32, 1017-1041 | 1.6 | 2 |
| 137 | A hierarchy of diffusion models for partially ionized plasmas. <i>Discrete and Continuous Dynamical Systems - Series B</i> , 2007 , 8, 735-772 | 1.3 | 11 |
| 136 | Mass and energy balance laws derived from High-Field limits of thermostatted Boltzmann equations. <i>Communications in Mathematical Sciences</i> , 2007 , 5, 355-382 | 1 | 23 |
| 135 | On quantum hydrodynamic and quantum energy transport models. <i>Communications in Mathematical Sciences</i> , 2007 , 5, 887-908 | 1 | 14 |
| 134 | On a New Isothermal Quantum Euler Model: Derivation, Asymptotic Analysis and Simulation. <i>Lecture Notes in Computer Science</i> , 2007 , 939-946 | 0.9 | 1 |
| 133 | On quantum extensions to classical spherical harmonics expansion/Fokker-Planck models. <i>Journal of Mathematical Physics</i> , 2006 , 47, 043302 | 1.2 | 10 |
| 132 | A Model for the Dynamics of large Queuing Networks and Supply Chains. <i>SIAM Journal on Applied Mathematics</i> , 2006 , 66, 896-920 | 1.8 | 103 |
| 131 | Macroscopic Fluid Models with Localized Kinetic Upscaling Effects. <i>Multiscale Modeling and Simulation</i> , 2006 , 5, 940-979 | 1.8 | 37 |
| 130 | A Boltzmann Model for Trapped Particles in a Surface Potential. <i>Multiscale Modeling and Simulation</i> , 2006 , 5, 364-392 | 1.8 | 4 |
| 129 | An asymptotically stable Particle-in-Cell (PIC) scheme for collisionless plasma simulations near quasineutrality. <i>Comptes Rendus Mathematique</i> , 2006 , 343, 613-618 | 0.4 | 15 |
| 128 | Diffusion Dynamics of Classical Systems Driven by an Oscillatory Force. <i>Journal of Statistical Physics</i> , 2006 , 124, 913-950 | 1.5 | 7 |
| 127 | Moment Systems Derived from Relativistic Kinetic Equations. <i>Journal of Statistical Physics</i> , 2006 , 125, 621-659 | 1.5 | 3 |
| 126 | Instability of the Ionospheric Plasma: Modeling and Analysis. <i>SIAM Journal on Applied Mathematics</i> , 2005 , 65, 2178-2198 | 1.8 | 5 |
| 125 | A Smooth Transition Model between Kinetic and Diffusion Equations. <i>SIAM Journal on Numerical Analysis</i> , 2005 , 42, 2671-2687 | 2.4 | 36 |
| 124 | A 1D coupled Schrödinger drift-diffusion model including collisions. <i>Journal of Computational Physics</i> , 2005 , 203, 129-153 | 4.1 | 13 |
| 123 | A hybrid kinetic-fluid model for solving the Vlasov-BGK equation. <i>Journal of Computational Physics</i> , 2005 , 203, 572-601 | 4.1 | 12 |
| 122 | Quasi-neutral fluid models for current-carrying plasmas. <i>Journal of Computational Physics</i> , 2005 , 205, 408-438 | 4.1 | 24 |

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