

B. PERTHAME, papers 2004-10

References

- [1] A. Marrocco, H. Henry, I. B. Holland, M. Plapp, S. J. S  ror, and B. Perthame. Models of self-organizing bacterial communities and comparisons with experimental observations. *Math. Model. Nat. Phenom.*, 5(1):148–162, 2010.
- [2] V. Calvez, N. Lenuzza, M. Doumic, J-P Deslys, F. Mouthon, and B. Perthame. Prion dynamics with size dependency–strain phenomena. *J. Biol. Dyn.*, 4(1):28–42, 2010.
- [3] Khashayar Pakdaman, Beno  t Perthame, and Delphine Salort. Dynamics of a structured neuron population. *Nonlinearity*, 23(1):55–75, 2010.
- [4] Beno  t Perthame. Why hyperbolic and kinetic models for cell populations self-organization? In *Hyperbolic problems: theory, numerics and applications*, volume 67 of *Proc. Sympos. Appl. Math.*, pages 123–134. Amer. Math. Soc., Providence, RI, 2009.
- [5] Beno  t Perthame and Panagiotis E. Souganidis. Asymmetric potentials and motor effect: a homogenization approach. *Ann. Inst. H. Poincar   Anal. Non Lin  aire*, 26(6):2055–2071, 2009.
- [6] Mostafa Bendahmane, Thomas Lepoutre, Americo Marrocco, and Beno  t Perthame. Conservative cross diffusions and pattern formation through relaxation. *J. Math. Pures Appl. (9)*, 92(6):651–667, 2009.
- [7] Henri Berestycki, Gr  goire Nadin, Benoit Perthame, and Lenya Ryzhik. The non-local Fisher-KPP equation: travelling waves and steady states. *Nonlinearity*, 22(12):2813–2844, 2009.
- [8] Philippe Lauren  ot and Benoit Perthame. Exponential decay for the growth-fragmentation/cell-division equation. *Commun. Math. Sci.*, 7(2):503–510, 2009.
- [9] Gui-Qiang Chen and Beno  t Perthame. Large-time behavior of periodic entropy solutions to anisotropic degenerate parabolic-hyperbolic equations. *Proc. Amer. Math. Soc.*, 137(9):3003–3011, 2009.
- [10] Beno  t Perthame and Panagiotis E. Souganidis. Asymmetric potentials and motor effect: a large deviation approach. *Arch. Ration. Mech. Anal.*, 193(1):153–169, 2009.
- [11] Marie Doumic, Beno  t Perthame, and Jorge P. Zubelli. Numerical solution of an inverse problem in size-structured population dynamics. *Inverse Problems*, 25(4):045008, 25, 2009.

- [12] Kyungkeun Kang, Benoit Perthame, Angela Stevens, and J. J. L. Velázquez. An integro-differential equation model for alignment and orientational aggregation. *J. Differential Equations*, 246(4):1387–1421, 2009.
- [13] Vincent Calvez, Natacha Lenuzza, Dietmar Oelz, Jean-Philippe Deslys, Pascal Laurent, Franck Mouthon, and Benoît Perthame. Size distribution dependence of prion aggregates infectivity. *Math. Biosci.*, 217(1):88–99, 2009.
- [14] Benoît Perthame and Anne-Laure Dalibard. Existence of solutions of the hyperbolic Keller-Segel model. *Trans. Amer. Math. Soc.*, 361(5):2319–2335, 2009.
- [15] Benoît Perthame and Suman Kumar Tumuluri. Nonlinear renewal equations. In *Selected topics in cancer modeling*, Model. Simul. Sci. Eng. Technol., pages 65–96. Birkhäuser Boston, Boston, MA, 2008.
- [16] Benoît Perthame and Guy Barles. Dirac concentrations in Lotka-Volterra parabolic PDEs. *Indiana Univ. Math. J.*, 57(7):3275–3301, 2008.
- [17] Gregoire Nadin, Benoît Perthame, and Lenya Ryzhik. Traveling waves for the Keller-Segel system with Fisher birth terms. *Interfaces Free Bound.*, 10(4):517–538, 2008.
- [18] B. Perthame and T. M. Touaoula. Analysis of a cell system with finite divisions. *Bol. Soc. Esp. Mat. Apl. SĒMA*, 44:55–79, 2008.
- [19] Lucilla Corrias and Benoît Perthame. Asymptotic decay for the solutions of the parabolic-parabolic Keller-Segel chemotaxis system in critical spaces. *Math. Comput. Modelling*, 47(7-8):755–764, 2008.
- [20] Fadia Bekkal Brikci, Jean Clairambault, and Benoît Perthame. Analysis of a molecular structured population model with possible polynomial growth for the cell division cycle. *Math. Comput. Modelling*, 47(7-8):699–713, 2008.
- [21] Benoit Perthame, Peter Markowich, and Jorge P. Zubelli. Mathematical methods and modeling of biophysical phenomena. *Math. Comput. Modelling*, 47(7-8):663–665, 2008.
- [22] Fadia Bekkal Brikci, Jean Clairambault, Benjamin Ribba, and Benoît Perthame. An age-and-cyclin-structured cell population model for healthy and tumoral tissues. *J. Math. Biol.*, 57(1):91–110, 2008.
- [23] Nikolaos Bournaveas, Vincent Calvez, Susana Gutiérrez, and Benoît Perthame. Global existence for a kinetic model of chemotaxis via dispersion and Strichartz estimates. *Comm. Partial Differential Equations*, 33(1-3):79–95, 2008.
- [24] Benoit Perthame and Luis Vega. Energy concentration and Sommerfeld condition for Helmholtz equation with variable index at infinity. *Geom. Funct. Anal.*, 17(5):1685–1707, 2008.

- [25] Benoît Perthame and Stéphane Génieys. Concentration in the nonlocal Fisher equation: the Hamilton-Jacobi limit. *Math. Model. Nat. Phenom.*, 2(4):135–151, 2007.
- [26] Vincent Calvez, Benoît Perthame, and Mohsen Sharifi tabar. Modified Keller-Segel system and critical mass for the log interaction kernel. In *Stochastic analysis and partial differential equations*, volume 429 of *Contemp. Math.*, pages 45–62. Amer. Math. Soc., Providence, RI, 2007.
- [27] Jean Clairambault, Stéphane Gaubert, and Benoît Perthame. An inequality for the Perron and Floquet eigenvalues of monotone differential systems and age structured equations. *C. R. Math. Acad. Sci. Paris*, 345(10):549–554, 2007.
- [28] Guy Barles and Benoît Perthame. Concentrations and constrained hamilton-jacobi equations arising in adaptive dynamics. *Cont. Math.*, 439, 2007.
- [29] Nikolaos Bournaveas, Vincent Calvez, Suzana Gutierrez, and Benoît Perthame. Global existence for a kinetic model of chemotaxis via dispersion and strichartz estimates. *Comm. P. D. E.*, To appear, 2007.
- [30] Benoît Perthame and Lenya Ryzhik. Moderate dispersion in scalar conservation laws with convex fluxes. *Comm. Math. Sc.*, 5(2):473–484, 2007.
- [31] Benoît Perthame and Jorge Zubelli. On the inverse problem for a size-structured population model. *Inverse problems*, 23:1037–1052, 2007.
- [32] Francois Bouchut, Haythem Ounaissa, and Benoît Perthame. Upwinding of the source term at interfaces for Euler equations with high friction. *Comput. Math. Appl.*, 53(3-4):361–375, 2007.
- [33] José Antonio Carrillo, Sílvia Cuadrado, and Benoît Perthame. Adaptive dynamics via Hamilton-Jacobi approach and entropy methods for a juvenile-adult model. *Math. Biosci.*, 205(1):137–161, 2007.
- [34] Benoît Perthame. *Transport equations in biology*. Frontiers in Mathematics. Birkhäuser Verlag, Basel, 2007.
- [35] V. Calvez and B. Perthame. A Lyapunov function for a two-chemical species version of the chemotaxis model. *BIT*, 46(suppl.):S85–S97, 2006.
- [36] P. Gwiazda and B. Perthame. Invariants and exponential rate of convergence to steady state in the renewal equation. *Markov Process. Related Fields*, 12(2):413–424, 2006.
- [37] Lucilla Corrias and Benoît Perthame. Critical space for the parabolic-parabolic Keller-Segel model in \mathbb{R}^d . *C. R. Math. Acad. Sci. Paris*, 342(10):745–750, 2006.

- [38] Adrien Blanchet, Jean Dolbeault, and Benoît Perthame. Two-dimensional Keller-Segel model: optimal critical mass and qualitative properties of the solutions. *Electron. J. Differential Equations*, pages No. 44, 32 pp. (electronic), 2006.
- [39] Jean Clairambault, Philippe Michel, and Benoît Perthame. Circadian rhythm and tumour growth. *C. R. Math. Acad. Sci. Paris*, 342(1):17–22, 2006.
- [40] Benoît Perthame. The general relative entropy principle—applications in Perron-Frobenius and Floquet theories and a parabolic system for biomotors. *Rend. Accad. Naz. Sci. XL Mem. Mat. Appl. (5)*, 29(1):307–325, 2005.
- [41] Benoît Perthame and P. E. Souganidis. Front propagation for a jump process model arising in spatial ecology. *Discrete Contin. Dyn. Syst.*, 13(5):1235–1246, 2005.
- [42] Philippe Michel, Stéphane Mischler, and Benoît Perthame. General relative entropy inequality: an illustration on growth models. *J. Math. Pures Appl. (9)*, 84(9):1235–1260, 2005.
- [43] Benoît Perthame and Michael Westdickenberg. Total oscillation diminishing property for scalar conservation laws. *Numer. Math.*, 100(2):331–349, 2005.
- [44] Emmanuel Audusse and Benoît Perthame. Uniqueness for scalar conservation laws with discontinuous flux via adapted entropies. *Proc. Roy. Soc. Edinburgh Sect. A*, 135(2):253–265, 2005.
- [45] Francis Filbet, Philippe Laurençot, and Benoît Perthame. Derivation of hyperbolic models for chemosensitive movement. *J. Math. Biol.*, 50(2):189–207, 2005.
- [46] Benoît Perthame and Lenya Ryzhik. Exponential decay for the fragmentation or cell-division equation. *J. Differential Equations*, 210(1):155–177, 2005.
- [47] Odo Diekmann, Pierre-Emmanuel Jabin, Stéphane Mischler, and Benoît Perthame. The dynamics of adaptation : an illuminating example and a hamilton-jacobi approach. *Th. Pop. Biol.*, 67(4):257–271, 2005.
- [48] Benoît Perthame and Lenya Ryzhik. The quantum scattering limit for a regularized Wigner equation. *Methods Appl. Anal.*, 11(3):447–464, 2004.
- [49] Benoît Perthame. Kinetic formulations of parabolic and hyperbolic PDEs: from theory to numerics. In *Evolutionary equations. Vol. I*, Handb. Differ. Equ., pages 437–471. North-Holland, Amsterdam, 2004.

- [50] Benoît Perthame and Panagiotis E. Souganidis. Addendum to: “Dissipative and entropy solutions to non-isotropic degenerate parabolic balance laws” [Arch. Ration. Mech. Anal. **170** (2003), no. 4, 359–370; mr2022136]. *Arch. Ration. Mech. Anal.*, 174(3):443–447, 2004.
- [51] Jean Dolbeault and Benoît Perthame. Optimal critical mass in the two-dimensional Keller-Segel model in \mathbb{R}^2 . *C. R. Math. Acad. Sci. Paris*, 339(9):611–616, 2004.
- [52] Benoît Perthame. PDE models for chemotactic movements: parabolic, hyperbolic and kinetic. *Appl. Math.*, 49(6):539–564, 2004.
- [53] L. Corrias, B. Perthame, and H. Zaag. Global solutions of some chemotaxis and angiogenesis systems in high space dimensions. *Milan J. Math.*, 72:1–28, 2004.
- [54] Emmanuel Audusse, François Bouchut, Marie-Odile Bristeau, Rupert Klein, and Benoît Perthame. A fast and stable well-balanced scheme with hydrostatic reconstruction for shallow water flows. *SIAM J. Sci. Comput.*, 25(6):2050–2065 (electronic), 2004.
- [55] Philippe Michel, Stéphane Mischler, and Benoît Perthame. General entropy equations for structured population models and scattering. *C. R. Math. Acad. Sci. Paris*, 338(9):697–702, 2004.
- [56] Fabio A. C. C. Chalub, Peter A. Markowich, Benoît Perthame, and Christian Schmeiser. Kinetic models for chemotaxis and their drift-diffusion limits. *Monatsh. Math.*, 142(1-2):123–141, 2004.
- [57] Th. Katsaounis, B. Perthame, and C. Simeoni. Upwinding sources at interfaces in conservation laws. *Appl. Math. Lett.*, 17(3):309–316, 2004.
- [58] Benoît Perthame. Mathematical tools for kinetic equations. *Bull. Amer. Math. Soc. (N.S.)*, 41(2):205–244 (electronic), 2004.