List of Publications by Giovanni Manfredi

1. G. Manfredi, S. Mola, M.R. Feix, *Quantum systems that follow classical dynamics*, Eur. J. Phys. **14**, 101 (1993).

2. G. Manfredi, J.L. Rouet, R. Dufour, *On some analogies concerning the N-body problem, quantum billiards and the refraction of a light beam*, Eur. J. Phys. **14**, 206 (1993).

3. S. Mola, G. Manfredi, M.R. Feix, *Expansion of a quantum electron gas*, J. Plasma Phys. **50**, 145 (1993).

4. G. Manfredi, S. Mola, M.R. Feix, *Rescaling methods and plasma expansions into vacuum*, Phys. Fluids B **5**, 388 (1993).

5. G. Manfredi, M.R. Feix, *Transport equations for quantum plasmas*, in *Advances in kinetic theory and computing*, ed. B. Perthame, Series in Applied Mathematics (World Scientific, Singapore, 1994), p. 109–140.

6. G. Manfredi, R.O. Dendy, R. Bingham, *Relativistic electron acceleration in nonuniform plasmas*, Journal de Physique (Paris) IV-5, C6 93–96 (1995).

7. G. Manfredi, M. Shoucri, M.R. Feix, P. Bertrand, E. Fijalkow, A. Ghizzo, *The numerical integration of the Vlasov equation possessing an invariant*, J. Comput. Phys. **121**, 298 (1995).

8. G. Manfredi et al., *Collisionless diffusion of particles and current across a magnetic field in beam-plasma interaction*, Fusion Technology **29**, 244 (1996).

9. G. Manfredi, M. Shoucri, R.O. Dendy, P. Bertrand, A. Ghizzo, *Vlasov gyrokinetic simulations of ion-temperature-gradient driven instabilities*, Phys. Plasmas **3**, 202 (1996).

10. G. Manfredi, M.R. Feix, *Theory and simulation of classical and quantum echoes*, Phys. Rev. E **53**, 6460 (1996).

11. G. Manfredi, R.O. Dendy, *Test-particle transport in strong electrostatic drift turbulence with finite Larmor radius effects*, Phys. Rev. Lett. **76**, 4360 (1996).

12. G. Manfredi, R.O. Dendy, R. Bingham, *Simulation of relativistic electron acceleration in underdense laser plasma experiments*, Lasers and Particle Beams **15**, 197 (1997).

13. M. Shoucri, J. Lebas, P. Betrand, A. Ghizzo, G. Manfredi, I. Cristopher, *Effect of viscous dissipation on the generation of shear flow at a plasma edge in the finite gyro-radius guiding center approximation*, Physica Scripta **55**, 617 (1997).

14. G. Manfredi, R.O. Dendy, *Transport properties of energetic particles in a turbulent electrostatic field*, Phys. Plasmas **4**, 628 (1997).

15. G. Manfredi, *Long-time behavior of nonlinear Landau damping*, Phys. Rev. Lett. **79**, 2815 (1997).

16. G. Manfredi, M. Ottaviani, *Gyro-Bohm scaling of ion thermal transport from global numerical simulations of ion-temperature-gradient-driven turbulence*, Phys. Rev. Lett. **79**, 4190 (1997).

17. G. Manfredi et al., *Charge separation at a plasma-wall transition due to the finite ion gyroradius*, J. Nucl. Materials **266-269**, 873 (1999).

18. G. Manfredi, M. Ottaviani, *Finite-difference schemes for the diffusion equation*, in *Dynamical systems, plasmas and gravitation*, ed. P.G.L. Leach, S. Bouquet, J.L. Rouet, E. Fijalkow, Lect. Notes Phys. **518**, 82-92 (1999).

19. M. Shoucri, E. Pohn, P. Bertrand, G. Knorr, G. Kamelander, G. Manfredi, A. Ghizzo, *Effect of impurity ions on the charge separation and velocity shear at a plasma edge*, Phys. Plasmas **6**, 1401 (1999).

20. M. Shoucri, G. Manfredi et al., *Charge-separation, velocity shear and suppression of turbulence at a plasma edge in the gyrokinetic approximation*, J. Plasma Phys. **61**, 191 (1999).

21. G. Manfredi, *Slowly decaying drift turbulence with wave effects*, J. Plasma Phys. **61**, 601 (1999).

22. M. Ottaviani, G. Manfredi, *The gyro-radius scaling of ion thermal transport from global numerical simulations of ITG turbulence*, Phys. Plasmas **6**, 3267 (1999).

23. G. Manfredi, M.R. Feix, *Entropy and gyro-raWigner functions*, Phys. Rev E **62**, 4665 (2000).

24. F. Haas, G. Manfredi, M.R. Feix, *A multistream model for quantum plasmas*, Phys. Rev. E **62**, 2763 (2000).

25. G. Manfredi, P. Bertrand, *Stability of Bernstein-Greene-Kruskal modes*, Phys. Plasmas **7**, 2425 (2000).

26. M. Shoucri, E. Pohn, G. Knorr, P. Bertrand, G. Kamelander, G. Manfredi, and A. Ghizzo, *Charge separation at a plasma edge in the presence of a density gradient*, Phys. Plasmas **7**, 517 (2000).

27. S. V. Annibaldi, G. Manfredi, R. O. Dendy, L. O'C. Drury, *Evidence for strange kinetics in Hasegawa-Mima turbulent transport*, Plasma Phys. Control. Fusion **42**, L13 (2000).

28. G. Manfredi, F. Haas, *Self-consistent fluid model for a quantum electron gas*, Phys. Rev. B **64**, 075316 (2001).

29. F. Haas, G. Manfredi, J. Goedert, *Nyquist method for Wigner-Poisson quantum plasmas*, Phys. Rev. E **64**, 026413 (2001).

30. G. Manfredi, C.M. Roach, R.O. Dendy, *Zonal flow and streamer generation in drift turbulence*, Plasma Phys. Control. Fusion **43**, 825 (2001).

31. M. Ottaviani, G. Manfredi, *Numerical assessment of ion turbulent thermal transport scaling laws*, Nucl. Fusion **41**, 637 (2001).

32. F. Valsaque, G. Manfredi, *Numerical study of plasma-wall transition in an oblique magnetic field*, J. Nucl. Materials **290-293**, 763 (2001).

33. G. Manfredi, F. Valsaque, *Plasma-wall transition and sheath formation*, Le Vide **306**, October – December 2002, pp. 810-835.

34. F. Valsaque, G. Manfredi, J.P. Gunn, E. Gauthier, *Kinetic simulations of ion temperature measurements from retarding field analyzers*, Phys. Plasmas **9**, 1806 (2002).

35. S. V. Annibaldi, G. Manfredi, R. O. Dendy, *Non-Gaussian transport in strong plasma turbulence*, Phys. Plasmas **9**, 791 (2002).

36. F. Haas, L.G. Garcia, J. Goedert, G. Manfredi, *Quantum Ion-Acoustic Waves,* Phys. Plasmas **10**, 3858 (2003).

37. G. Manfredi, C.M. Roach, *Bursting events in zonal flow–drift wave turbulence*, Phys. Plasmas **10**, 2824 (2003).

38. F. Haas, G. Manfredi, J. Goedert, *Stability analysis of a three-stream quantum-plasma equilibrium*, Braz. J. Phys. **33**, 128 (2003).

39. G. Manfredi, P.-A. Hervieux, *Vlasov simulations of ultrafast electron dynamics and transport in thin metal films*, Phys. Rev. B **70**, 201402(R) (2004).

40. G. Manfredi, F. Valsaque, *Vlasov simulations of plasma-wall interactions in a weakly collisional plasma*, Comput. Phys. Comm. **164**, 262 (2004).

41. G. Manfredi, *How to model quantum plasmas*, Fields Instit. Commun. Series **46**, 263-287 (2005) (quant-ph/0505004).

42. G. Manfredi, P.-A. Hervieux, *Nonlinear absorption of ultrashort laser pulses in thin metal films*, Optics Letters **30**, 3090 (2005).

43. G. Manfredi, P.-A. Hervieux, *Finite-size and nonlinear effects on the ultrafast electron transport in thin metal films*, Phys. Rev. B **72**, 155421 (2005).

44. J.-L. Rouet, G. Manfredi, , Trans. Theory Stat. Phys. **34**, 275 (2005).

45. G. Manfredi, P.-A. Hervieux, *Loschmidt echo in a system of interacting electrons*, Phys. Rev. Lett. **97**, 190404 (2006).

46. S. Devaux, G. Manfredi, *Vlasov simulations of plasma-wall interactions in a magnetized and weakly collisional plasma*, Phys. Plasmas **13**, 083504 (2006).

47. V. Grandgirard, M. Brunetti, P. Bertrand, N. Besse, X. Garbet, P. Ghendrih, G. Manfredi *et al., A drift-kinetic Semi-Lagrangian 4D code for ion turbulence simulation,* J. Comput. Phys. **217**, 395 (2006).

48. G. Manfredi, P.-A. Hervieux, *Vlasov simulations of the electron dynamics in metallic nanostructures,* Comp. Mater. Sci. **35**, 327 (2006).

49. G. Manfredi, P.-A. Hervieux, *Autoresonant control of the many-electron dynamics in nonparabolic quantum wells*, Appl. Phys. Lett. **91**, 061108 (2007).

50. F. Haas, B. Eliasson, P. K. Shukla, and G. Manfredi, *Phase-space structures in quantum-plasma wave turbulence*, Phys. Rev. E **78**, 056407 (2008).

51. N. Crouseilles, P.-A. Hervieux, G. Manfredi, *Quantum hydrodynamic model for the nonlinear electron dynamics in thin metal films*, Phys. Rev. B **78**, 155412 (2008).

52. G. Brodin, M. Marklund, G. Manfredi, *Quantum Plasma Effects in the Classical Regime*, Phys. Rev. Lett. **100**, 175001 (2008).

53. G. Manfredi, P.-A. Hervieux, *Fidelity decay in a trapped Bose-Einstein condensate*, Phys. Rev. Lett. **100**, 050405 (2008).

54. S. Devaux, G. Manfredi, *Magnetized plasma-wall transition – consequences for wall sputtering and erosion*, Plasma Phys. Control. Fusion **50,** 025009 (2008).

55. F. Haas, G. Manfredi, P. K. Shukla, and P.-A. Hervieux, *Breather mode in the many-electron dynamics of semiconductor quantum wells*, Phys. Rev. B **80**, 073301 (2009).

56. Yue Yin, Paul-Antoine Hervieux, Rodolfo A. Jalabert, Giovanni Manfredi, Emmanuel Maurat, Dietmar Weinmann, *Spin-dependent dipole excitation in alkali-metal nanoparticles*, Phys. Rev. B **80**, 115416 (2009).

57. O. Morandi, P.-A. Hervieux, G. Manfredi, *Ultrafast magnetization dynamics in diluted magnetic semiconductors*, New J. Phys. **11**, 073010 (2009).

58. R. Jasiak, G. Manfredi, P.-A. Hervieux and M. Haefele, *Quantum–classical transition in the electron dynamics of thin metal films*, New J. Phys. **11,** 063042 (2009).

59. O. Morandi, P.-A. Hervieux, G. Manfredi, *Laser induced ultrafast demagnetization in diluted magnetic semiconductor nanostructures*, Eur. Phys. J. D **52**, 155 (2009).

60. G. Manfredi, P.-A. Hervieux, *Loschmidt echo for the electron dynamics in nonparabolic quantum wells*, New J. Phys. **11,** 013050 (2009).

61. R. Jasiak, G. Manfredi, P.-A. Hervieux, *Electron thermalization and quantum decoherence in metal nanostructures*, Phys. Rev. B **81**, 241401(R) (2010).

62. G. Manfredi, P.-A. Hervieux, Y. Yin, N. Crouseilles, *Collective Electron Dynamics in Metallic and Semiconductor Nanostructures*, Lect. Notes Phys. **795**, 1-44 (2010).

63. O. Morandi, P.-A. Hervieux, G. Manfredi, *Pseudo-fermion formalism applied to nonequilibrium Kondo-type problems*, Nuovo Cim. **33C**, 173 (2010).

64. O. Morandi, P.-A. Hervieux, G. Manfredi, *Time-dependent model for diluted magnetic semiconductors including band structure and confinement effects*, Phys. Rev. B **81**, 155309 (2010).

65. H. Kesserwan, G. Manfredi, J.-Y. Bigot, P.-A. Hervieux, *Magnetization reversal in isolated and interacting single-domain nanoparticles*, Phys. Rev. B **84**, 172407 (2011).

66. G. Manfredi, S. Hirstoaga, S. Devaux, *Vlasov modelling of parallel transport in a tokamak scrape-off layer*, Plasma Phys. Control. Fusion **53**, 015012 (2011).

67. G. Manfredi, P.-A. Hervieux, *Adiabatic cooling of trapped nonneutral plasma***,** Phys. Rev. Lett. **109**, 255005 (2012).

68. P. Debu et al. (GBAR collaboration), *Gravitational behavior of antihydrogen at rest,* Hyperfine Interact. **212**, 51-59 (2012).

69. G. Manfredi, P.-A. Hervieux, F. Haas, *Nonlinear dynamics of electron–positron clusters*, New J. Phys. **14**, 075012 (2012).

70. E. Havlıckova, W. Fundamenski, D. Tskhakaya, G. Manfredi, and D. Moulton, *Comparison of fluid and kinetic models for prediction of target heat fluxes during ELMs*, Plasma Phys. Control. Fusion **54**, 045002 (2012).

71. O. Morandi, P.-A. Hervieux, G. Manfredi, *Bose-Einstein-condensation dynamics with a quantum-kinetic approach*, Phys. Rev. A **88**, 023618 (2013).

72. A. Dixit, Y. Hinschberger, J. Zamanian, G. Manfredi, P.-A Hervieux, *Lagrangian approach to the semirelativistic electron dynamics in the mean-field approximation*, Phys. Rev. A **88**, 032117 (2013).

73. D. Moulton, Ph. Ghendrih, W. Fundamenski, G. Manfredi, D. Tskhakaya, *Quasineutral plasma expansion into infinite vacuum as a model for parallel ELM transport*, Plasma Phys. Control. Fusion **55**, 085003 (2013).

74. D. Moulton, W. Fundamenski, G. Manfredi, S. Hirstoaga, D. Tskhakaya, *Comparison of free-streaming ELM formulae to a Vlasov simulation,* J. Nucl. Mater. **438**, S633-S637 (2013).

75. Giovanni Manfredi, *Non-relativistic limits of Maxwell's equations*, Eur. J. Phys. **34**, 859 (2013).

76. S. Schröter, P.-A. Hervieux, G. Manfredi, J. Eiglsperger, J. Madroñero, *Exact treatment of planar two-electron quantum dots: effects of anharmonicity on the complexiy*, Phys. Rev. B **87**, 155413 (2013).

77. G. Manfredi, P.-A. Hervieux, F. Haas, *Variational approach to the time-dependent Schrödinger–Newton equations*, Class. Quantum Grav. **30** 075006 (2013).

78. D. Coulette, G. Manfredi, *An Eulerian Vlasov code for plasma-wall interactions,* J. Phys.: Conf. Ser. **561**, 012005 (2014).

79. O. Morandi, P.-A. Hervieux, G. Manfredi, *Study of the quenched lifetime of an interacting positronium gas*, J. Phys. B: At., Mol. Opt. Phys. **47**, 155202 (2014).

80. O. Morandi, P.-A. Hervieux, and G. Manfredi, *Bose-Einstein condensation of positronium in silica pores*, Phys. Rev. A **89**, 033609 (2014).

81. O. Morandi, P.-A. Hervieux, and G. Manfredi, *Study of the positronium thermalization in porous materials*, Eur. Phys. J. D **68**, 84 (2014).

82. P. Indelicato et al., *The Gbar project, or how does antimatter fall?* Hyperfine Interactions (Feb. 2014).

83. G. Klughertz, P.-A. Hervieux, G. Manfredi, *Autoresonant control of the magnetization switching in single-domain nanoparticles*, J. Phys. D: Appl. Phys. **47**, 345004 (2014).

84. O. Morandi, J. Zamanian, G. Manfredi, P.-A. Hervieux, *Quantum-relativistic hydrodynamic model for a spin-polarized electron gas interacting with light*, Phys. Rev. E **90**, 013103 (2014).

85. J. Hurst, F. Haas, G. Manfredi, P.-A. Hervieux, *High-harmonic generation by nonlinear resonant excitation of surface plasmon modes in metallic nanoparticles*, Phys. Rev. B **89**, 161111(R) (2014).

86. J. Hurst, O. Morandi, G. Manfredi, and P.-A. Hervieux, *Semiclassical Vlasov and fluid models for an electron gas with spin effects*, Eur. Phys. J. D **68**, 176 (2014).

87. N. Crouseilles, G. Manfredi, *Asymptotic preserving schemes for the Wigner-Poisson-BGK equations in the diffusion limit*, Comp. Phys. Comm. **185**, 448 (2014).

88. D. Coulette, G. Manfredi, *Collisionless "thermalization" in the sheath of an argon discharge*, Phys. Plasmas 22, 043505 (2015).

89. F. Pegoraro, F. Califano, G. Manfredi, P. J. Morrison, *Theory and applications of the Vlasov equation*, Eur. Phys. J. D **69**, 68 (2015).

90. G. Manfredi, *The Schrödinger-Newton equations beyond Newton*, Gen. Relativ. Gravit. **47**, 1 (2015).

91. P. Perez et al., *The GBAR antimatter gravity experiment*, Hyperfine Interactions, April 2015

92. Y. Hinschberger, A. Dixit, G. Manfredi, P.-A. Hervieux, *Equivalence between the semi-relativistic limit of the Dirac-Maxwell equations and the Breit-Pauli model in the mean-field approximation*, Phys. Rev. A **91**, 012101 (2015).

93. G. Manfredi, J. Hurst, *Solid state plasmas*, Plasma Phys. Control. Fusion **57**, 054004 (2015).

94. G. Klughertz, L. Friedland, P.-A. Hervieux, G. Manfredi, *Autoresonant switching of the magnetization in single-domain nanoparticles: Two-level theory*, Phys. Rev. B **91**, 104433 (2015).

95. J. Hurst, K. Lévêque-Simon, P.-A. Hervieux, G. Manfredi, F. Haas, *High-harmonic generation in a quantum electron gas trapped in a nonparabolic and anisotropic well*, Phys. Rev. B **93**, 205402 (2016).

96. Y. Hinschberger, G. Manfredi, P.-A. Hervieux, *Coherent spin-light-induced mechanisms in the semirelativistic limit of the self-consistent Dirac-Maxwell equations,* Phys. Rev. A **93**, 042117 (2016).

97. G. Klughertz, G. Manfredi, P.-A. Hervieux, B.P. Pichon, S. Begin-Colin, *Effect of Disorder and Dipolar Interactions in Two-Dimensional Assemblies of Iron-Oxide Magnetic Nanoparticles*, J. Phys. Chem. C**120**, 7381-7387 (2016).

98. G. Manfredi, J.-L. Rouet, B. Miller, Y. Shiozawa, *Cosmology in one dimension: Vlasov dynamics*, Phys. Rev. E **93**, 042211 (2016).

99. O. Morandi, P.-A. Hervieux, G. Manfredi, *Bose-Einstein condensation of positronium: modification of the s-wave scattering length below the critical temperature*, J. Phys. B **49**, 084002 (2016). ArXiv.

100. F. Califano, G. Manfredi, F. Valentini, *Special issue: The Vlasov equation, from space to laboratory plasmas*, J. Plasma Physics **82**, 70182060 (2016).

101. D. Coulette, S. Hirstoaga, G. Manfredi*, Effect of collisional temperature isotropisation on ELM parallel transport in a tokamak scrape-off layer*, Plasma Phys. Control. Fusion **58**, 085004 (2016).

102. D. Coulette, G. Manfredi, *Kinetic simulations of the Chodura and Debye sheaths for magnetic fields with grazing incidence*, Plasma Phys. Control. Fusion **58**, 025008 (2016).

103. G. Klughertz, L. Friedland, P.-A. Hervieux, G. Manfredi, *Spin-torque switching and control using chirped AC currents*, J. Phys. D: Applied Physics **50**, 415002 (2017).

104. J. Hurst, P.-A. Hervieux, G. Manfredi, *Phase-space methods for the spin dynamics in condensed matter systems*, Phil. Trans. Royal Soc. A **375**(2092), 20160199 (2017).

105. G. Manfredi, O. Morandi, L. Friedland, T. Jenke, H. Abele, *Chirped-Frequency Excitation of Gravitationally Bound Ultracold Neutrons*, Phys. Rev. D **95**, 025016 (2017)

106. J. Hurst, P. M. Oppeneer, G. Manfredi, P.-A. Hervieux, *Magnetic moment generation in small gold nanoparticles via the plasmonic inverse Faraday effect*, Phys. Rev. B **98**, 134439 (2018).

107. F. Tanjia, J. Hurst, P.-A. Hervieux, G. Manfredi, *Plasmonic breathing modes in C60 molecules: A quantum hydrodynamic approach*, Phys. Rev. A **98**, 043430 (2018); arXiv:1806.05564.

108. G. Manfredi, P.-A. Hervieux, J. Hurst, *Ultrafast spin current generation in ferromagnetic thin films*, Proc. SPIE 10732, Spintronics XI, 107322V (2018). arXiv:1807.10946.

109. G. Manfredi, P.-A. Hervieux, F. Tanjia, *Quantum hydrodynamics for nanoplasmonics*, Proc. SPIE 10722, Plasmonics: Design, Materials, Fabrication, Characterization, and Applications XVI, 107220B (2018). arXiv:1807.10947

110. J. Hurst, P.-A. Hervieux, G. Manfredi, *Spin current generation by ultrafast laser pulses in ferromagnetic nickel films*, Phys. Rev. B **97**, 014424 (2018).

111. G. Chardin, G. Manfredi, *Gravity, antimatter and the Dirac-Milne universe*, Hyperfine Interactions, **239**: 45 (2018)

112. G. Manfredi, *Preface to Special Topic: Plasmonics and solid-state plasmas*, Physics of Plasmas **25**, 031701 (2018).

113. G. Manfredi, J.-L. Rouet, B. Miller, G. Chardin, *Cosmological structure formation with negative mass*, Phys. Rev. D **98**, 023514 (2018).

114. G. Manfredi, J. Hurst, P.-A. Hervieux, *Phase-space modelling of solid-state plasmas*, Rev. Mod. Plasma Phys. **3**, 13 (2019).

115. G. Manfredi, *Density functional theory for collisionless plasmas – equivalence of fluid and kinetic approaches*, J. Plasma Phys. **86**, 825860201 (2020)

116. C. Iacovita, J. Hurst, G. Manfredi, P.A. Hervieux, B. Donnio, J.L. Gallani, M.V. Rastei, *Magnetic force fields of isolated small nanoparticle clusters,* Nanoscale **12**, 10090 (2020)

117. Y. Rosales-Cabara, G. Manfredi, G. Schnoering, P.-A. Hervieux, L. Mertz, C. Genet, *Optimal protocols and universal time-energy bound in Brownian thermodynamics*, Phys. Rev. Research **2**, 012012 (2020).

118. R. Sinha-Roy, J. Hurst, G. Manfredi, P.A. Hervieux, *Driving Orbital Magnetism in Metallic Nanoparticles Through Circularly Polarized Light: A Real-Time TDDFT Study*, ACS Photonics **7**, 9, 2429-2439 (2020).

119. F Califano, Giovanni Manfredi, F Valentini, *The many facets of the Vlasov equation,* J. Plasma Phys. **86**, 821860401 (2020).

120. G Manfredi, JL Rouet, BN Miller, G Chardin, *Structure formation in a Dirac-Milne universe: comparison with the standard cosmological model*, Physical Review D **102**, 103518 (2020).

121. G. Chardin, Y. Dubois, G. Manfredi, B. Miller and C. Stahl, *MOND-like behavior in the Dirac–Milne universe: Flat rotation curves and mass versus velocity relations in galaxies and clusters*, Astronomy & Astrophysics **652**, A91 (2021).

122. M. Charlton et al., *Positron production using a 9 MeV electron linac for the GBAR experiment*, Nuclear Instruments and Methods in Physics Research A **985**, 164657 (2021).

123. G. Manfredi, *Is the cosmological constant an eigenvalue?* Gen. Relativ. Gravit. **53**, 1-19 (2021).

124. R Goerlich, M Li, S Albert, G Manfredi, PA Hervieux, C Genet, *Noise and ergodic properties of Brownian motion in an optical tweezer: Looking at regime crossovers in an Ornstein-Uhlenbeck process*, Phys. Rev. E **103**, 032132 (2021)

125. N Crouseilles, P-A Hervieux, Y Li, G Manfredi, Y Sun, *Geometric particle-in-cell methods for the Vlasov–Maxwell equations with spin effects*, J. Plasma Physics **87**, 825870301 (2021)

126. A. Husson et al., *A pulsed high-voltage decelerator system to deliver low-energy antiprotons*, Nuclear Instruments and Methods in Physics Research A **1002**, 165245 (2021).

127. R Goerlich, G Manfredi, P-A Hervieux, L Mertz, C Genet, *Probing quantum effects with classical stochastic analogs*, Physical Review Research **3**, 033203 (2021).

128. M Khalid, O Morandi, Emilien Mallet, PA Hervieux, G Manfredi, Antoine Moreau, C Ciraci, *Influence of the electron spill-out and nonlocality on gap plasmons in the limit of vanishing gaps*, Phys. Rev. B **104**, 155435 (2021).

129. G Manfredi, P-A Hervieux, J Hurst, *Fluid descriptions of quantum plasmas*, Rev. Modern Plasma Phys. **5**, 1-38 (2021).

130. G Manfredi, P-A Hervieux, N Crouseilles, Spin effects in ultrafast laser-plasma interactions, Eur. Phys. J. Spec. Topics (2022). https://doi.org/10.1140/epjs/s11734-022-00669-5.

131. G. Manfredi, *Logical entropy – special issue*, 4open **5,** E1 (2022).

132. G. Manfredi, *Logical entropy and negative probabilities in quantum mechanics*, 4open **5**, 8 (2022).

133. P. Blumer et al., *Positron accumulation in the GBAR experiment*, Nuclear Instruments and Methods in Physics Research A **1040**, 167263 (2022).

134. R. Goerlich, L. Barbosa Pires, G. Manfredi, P-A Hervieux, C. Genet, *Harvesting information to control nonequilibrium states of active matter*, Phys. Rev. E **106**, 054617 (2022).

134a. R. Goerlich, L. Barbosa Pires, G. Manfredi, P-A Hervieux, C. Genet, *Reply to Comment*, Phys. Rev. E **107**, 056602 (2023).

135. E. Gravier et al., *Collision rates estimated from exact N-body simulations of a one-dimensional plasma*, Phys. Plasma **30**, 012102 (2023).

136. Bruce Miller, Giovanni Manfredi, Dan Pirjol, Jean-Louis Rouet, *From chaos to cosmology: insights gained from 1D gravity,* Class. Quantum Grav. **40**, 073001 (2023).

137. Giovanni Manfredi, Antoine Rittaud, Cesare Tronci, *Hybrid quantum-classical dynamics of pure-dephasing systems,* J. Phys. A: Math. Theor. **56,** 154002 (2023).

138. N. Crouseilles, P.-A. Hervieux, X. Hong, G. Manfredi, *Vlasov-Maxwell equations with spin effects*, Journal of Plasma Physics **89**, 905890215 (2023).

139. Luís Barbosa Pires, Rémi Goerlich, Arthur Luna da Fonseca, Maxime Debiossac, Paul-Antoine Hervieux, Giovanni Manfredi, Cyriaque Genet, *Optimal Time-Entropy Bounds and Speed Limits for Brownian Thermal Shortcuts*, Phys. Rev. Lett. **131**, 097101 (2023).

140. V. Hardel, P.-A. Hervieux, G. Manfredi, *Relaxation to Quantum Equilibrium and the Born Rule in Nelson's Stochastic Dynamics*, Foundations of Physics **53**, 89 (2023).

141. Adrich, P., Blumer, P., Caratsch, G. et al., *Production of antihydrogen atoms by 6 keV antiprotons through a positronium cloud,* Eur. Phys. J. C **83**, 1004 (2023).

142. C. Courtès, M. Boileau, R. Côte, P.-A. Hervieux, G. Manfredi, *Micromagnetic simulations of the size dependence of the Curie temperature in ferromagnetic nanowires and nanolayers*, Journal of Magnetism and Magnetic Material, **598**, 172040 (2024).

143. Lian, Deru, Yang, Yanji, Manfredi, Giovanni, Hervieux, Paul-Antoine and Sinha-Roy, Rajarshi. *Orbital magnetism through inverse Faraday effect in metal clusters*, Nanophotonics **13**, no. 23, 2024, pp. 4291-4302. https://doi.org/10.1515/nanoph-2024-0352

144. V. Hardel, G. Manfredi, P.-A. Hervieux, R. Goerlich, *Shortcuts to adiabaticity in harmonic traps: A quantum-classical analog*, Phys. Rev. E **110**, 054138 (2024).

145. Benjamin Bakri, Nicolas Crouseilles, Paul-Antoine Hervieux, Xue Hong and Giovanni Manfredi, *Ultrafast dynamics of a spin-polarized electron plasma with magnetic ions*, Journal of Plasma Physics (2025) **91**(*1*), E9.

146. G. Manfredi, A. Bret, G. Brodin, I. Kourakis, M. Marklund, J. T. Mendonca, H. Terças, *Obituary: Fernando Haas (1970-2024),* Phys. Plasmas **32**, 102104 (2025).

147. R. Goerlich, M. Li, Luís B. Pires, P-A Hervieux, G. Manfredi, C. Genet, *Taming a Maxwell's demon for experimental stochastic resetting*, Phys. Rev. E **112**, 064116 (2025).

148. B. Bakri, N. Crouseilles, P.-A. Hervieux, G. Manfredi, *Wave-particle interactions in a spin polarized plasma*, Phys. Plasmas **33**, 022111 (2026).

149. Byungchan Lee et al 2026, *Record accumulation of antiprotons in a Penning–Malmberg trap and their preparation for improved production of antihydrogen beams*, J. Phys. G: Nucl. Part. Phys. **53,** 085002 (2026). https://doi.org/10.1088/1361-6471/ae7456

150. Jan Bartsch, Alfio Borzì, Paul-Antoine Hervieux, Giovanni Manfredi, *Faster-than-adiabatic cooling of non-neutral plasmas*, Phys. Rev. E **114**, 035208 (2026).

151. Aaron Wandhammer, Vincent Hardel, Paul-Antoine Hervieux, Giovanni Manfredi, *Optimal quantum Feshbach engines*, Phys. Rev. A **114**, L040201 (2026).

152. Ludovic Godard-Cadillac, Paul-Antoine Hervieux, Giovanni Manfredi, *Self-organization of magnetic nanoparticles in a viscous fluid via dipolar interactions*, Journal of Magnetism and Magnetic Materials **659**, 174669 (2026).

153. Giovanni Manfredi, Jean-Louis Rouet, Bruce Miller, *The Bondi universe: Can negative mass drive the cosmological expansion?* Physics of the Dark Universe **54**, 102493 (2026) https://doi.org/10.1016/j.dark.2026.102493.