

## PUBLICATIONS

(Janvier 2026)

### I. PUBLICATIONS DANS DES REVUES À COMITÉ DE LECTURE

1. T. Passot & A. Pouquet  
The Painlevé Test on a Modified Burgers Equation; *Phys. Lett. A* **118**, 3, 121-123 (1986).
2. T. Passot & A. Pouquet  
Numerical Simulation of Compressible Homogeneous Flows in the Turbulent Regime; *J. Fluid Mech.* **181**, 441-466 (1987).
3. T. Passot & A. Pouquet  
Hyperviscosity for Compressible Flows using Spectral Methods; *J. Comput. Phys.* **75**, 300-313 (1988).
4. T. Passot, A. Pouquet & P.R. Woodward  
On the Plausibility of Kolmogorov-type Spectra in Molecular Clouds; *Astron. Astrophys.* **197**, 228-234 (1988).
5. J.C. Fernandez, T. Passot, H. Politano, G. Reinisch & M. Taki  
Sturm-Liouville Description of Sine-Gordon Soliton Dynamics; *Phys. Rev. B* **37**, 7342-7347 (1988).
6. J. Léorat, T. Passot & A. Pouquet  
Influence of Supersonic Turbulence on Self-Gravitating Flows; *Mon. Not. R. astr. soc.* **243**, 293-311 (1990).
7. A.C. Newell, T. Passot & M. Souli  
Convection at Finite Rayleigh Numbers in Large Aspect Ratio Containers; *Phys. Rev. Lett.* **64**, 2378-2381 (1990).
8. T. Passot, A. Pouquet & P.L. Sulem  
Role of Conservation Laws in Small Reynolds Number Closures: Application to Large Scale Dynamics of Compressible Flows; *Physica D* **43**, 37-43 (1990).
9. D.S. De Young, B.R. Durney & T. Passot  
On the Location of the Layer Generating the Solar Magnetic Field; *Astrophys. J.* **362**, 709-721 (1990).
10. A.C. Newell, T. Passot & M. Souli  
The Phase Diffusion and Mean Drift Equations for Convection at Finite Rayleigh Numbers in Large Containers; *J. Fluid Mech.* **220**, 187-252 (1990).
11. T. Passot, H. Politano, A. Pouquet & P.L. Sulem  
Comparative Study of Dissipation Modeling in Two-Dimensional MHD Turbulence; *Theoretical and Computational Fluid Dynamics* **1**, 47-60 (1990).
12. J. Elaoufir, A. Mangeney, T. Passot, C.C. Harvey & C.T. Russel  
Large Amplitude MHD Waves in the Earth's Proton Foreshock; *Ann. Geophys.* **8**, n4, 297 (1990).
13. T. Passot & A. Pouquet  
Numerical Simulations of Three-Dimensional Supersonic Flows; *Eur. J. Mech. B-Fluids* **10**, 377-394 (1991).
14. B. Bayly, D. Levermore & T. Passot  
Density Variations in Weakly Compressible Flows; *Physics of Fluids A* **4**, 945-954 (1992).
15. A.C. Newell & T. Passot  
Instabilities of Dislocations in Fluid Patterns; *Phys. Rev. Lett.* **68**, 1846-1849 (1992).
16. A.C. Newell, T. Passot & J. Lega  
Order Parameter Equations for Patterns; *Annu. Rev. Fluid Mech.* **25**, 399-453 (1993).
17. T. Passot & P.L. Sulem  
Multi-dimensional modulation of Alfvén waves; *Phys. Rev. E* **48**, 2966-2974 (1993).
18. T. Passot & A.C. Newell  
Towards a universal theory for natural patterns; *Physica D* **74**, 301-352 (1994).
19. T. Passot, C. Sulem & P.L. Sulem  
Effect of longitudinal modulation on Alfvén wave filamentation; *Phys. Rev. E* **50**, 1427-1436 (1994).
20. T. Passot, H. Politano, P.L. Sulem, J.R. Angillela & M. Meneguzzi  
Instability of strained vortex layers and vortex tube formation in homogeneous turbulence; *J. Fluid Mech.* **282**, 313-338 (1995).
21. E. Vázquez-Semadeni, T. Passot & A. Pouquet  
A turbulent model for the interstellar medium. I. Threshold star formation and self-gravity; *Astrophys. J.* **441**, 702-725 (1995).
22. T. Passot, E. Vázquez-Semadeni & A. Pouquet  
A turbulent model for the interstellar medium. II. magnetic fields and rotation; *Astrophys. J.* **455**, 536-555 (1995).
23. A.C. Newell, T. Passot, N. Ercolani & R. Indik  
Elementary and Composite Defects of Striped Patterns; *J. Phys. II France* **5**, 1863-1882 (1995).
24. T. Passot, C. Sulem & P.L. Sulem  
Generation of acoustic fronts by focusing wave packets; *Physica D* **94**, 168-187 (1996).

- 25.** A.C. Newell, T. Passot, C. Bowman, N. Ercolani & R. Indik  
Defects are weak and self-dual solutions of the Cross-Newell phase diffusion equation for natural patterns; *Physica D* **97**, 185-205 (1996).
- 26.** E. Vázquez-Semadeni, T. Passot & A. Pouquet,  
Influence of cooling-induced compressibility on the structure of turbulent flows and gravitational collapse; *Astrophys. J.* **473**, 881-893 (1996).
- 27.** Y. Ponty, T. Passot & P.L. Sulem  
A new instability for rotating convection with free-slip boundary conditions at finite Prandtl number; *Phys. Fluids*. **9**, 67-75 (1997).
- 28.** S. Champeaux, T. Passot & P.L. Sulem,  
Alfvén wave filamentation; *J. Plasma Phys.* **58**, 665-690 (1997).
- 29.** S. Champeaux, A. Gazol, T. Passot & P.L. Sulem,  
Plasma heating by Alfvén wave filamentation: a relevant mechanism in the solar corona and the interstellar medium; *Astrophys. J.* **486**, 477-483 (1997).
- 30.** Y. Ponty, T. Passot & P.L. Sulem  
Chaos and structures in rotating convection at finite Prandtl number; *Phys. Rev. Lett.* **79**, 71-74 (1997).
- 31.** Y. Ponty, T. Passot & P.L. Sulem  
Pattern dynamics for rotating convection at finite Prandtl number; *Phys. Rev. E* **56**, 4162-4178 (1997).
- 32.** C. Bowman, N. Ercolani, R. Indik, A.C. Newell & T. Passot  
Patterns, Defects and Integrability; *Physica D* **123**, 474-492 (1998).
- 33.** S. Champeaux, A. Gazol, T. Passot & P.L. Sulem,  
Nonlinear dynamics of weakly dispersive Alfvén waves; *Physica Scripta* **T75**, 156-157 (1998)
- 34.** S. Champeaux, T. Passot & P.L. Sulem  
Transverse collapse of Alfvén wave-trains with small dispersion; *Phys. Plasmas* **5**, 100-111 (1998).
- 35.** A. Gazol, T. Passot & P.L. Sulem  
Nonlinear dynamics of obliquely propagating Alfvén waves; *J. Plasma Phys.* **60**, 95-109 (1998).
- 36.** C. Bowman, T. Passot, M. Assenheimer & A.C. Newell  
A wavelet based algorithm for pattern analysis; *Physica D* **119**, 250-282 (1998).
- 37.** J. Scalo, E. Vázquez-Semadeni, D. Chappel & T. Passot  
On the density probability function of galactic gas. I. Numerical simulations and the significance of the polytropic index; *Astrophys. J.* **504**, 835-853 (1998).
- 38.** T. Passot & E. Vázquez-Semadeni  
Density probability distribution in one-dimensional polytropic gas dynamics; *Phys. Rev. E* **58**, 4501-4510 (1998).
- 39.** S. Champeaux, T. Passot & P.L. Sulem  
Dissipation of weakly dispersive Alfvén waves; *Phys. Plasmas* **6**, 413-416 (1999).
- 40.** A. Gazol & T. Passot  
A turbulent model for the interstellar medium. III. stratification and supernovae explosions; *Astrophys. J.* **518**, 748-759 (1999).
- 41.** D. Laveder, T. Passot, Y. Ponty & P.L. Sulem  
Effect of a random noise on scaling laws of finite Prandtl number rotating convection near threshold; *Phys. Rev. E.* **59**, R4745-R4748 (1999).
- 42.** A. Gazol, T. Passot & P.L. Sulem  
Coupling between nonlinear Alfvén waves and reduced magnetohydrodynamics for compressible fluids; *Phys. Plasmas* **6**, 3114-3122 (1999).
- 43.** S. Champeaux, D. Laveder, T. Passot & P.L. Sulem  
Remarks on the parallel propagation of small-amplitude dispersive Alfvén waves; *Nonlin. Process. Geophys.* **6**, 169-178 (1999).
- 44.** E. Vázquez-Semadeni, E. Ostriker, T. Passot, C. Gammie & J. Stone  
Compressible MHD turbulence and the ISM: Implications for molecular cloud and star formation; Protostar and Planets IV, V. Mannings, A.P. Boss and S.S. Russell, eds., The university of Arizona Press, 3-28 (2000).
- 45.** B. Pichardo, E. Vázquez, A. Gazol, T. Passot & J. Ballesteros-Paredes  
On the Effects of Projection on Morphology; *Astrophys. J.*, **532**, 353-360 (2000).
- 46.** D. Laveder, T. Passot & P.L. Sulem,  
Alfvén wave filamentation beyond the envelope formalism; *Physica Scripta* **T84**, 38-41 (2000).
- 47.** N. Ercolani, R. Indik, A.C. Newell & T. Passot  
The geometry of the phase diffusion equation; *J. Nonlinear Science* **10**, 223-274 (2000).
- 48.** A. Hagberg, E. Meron & T. Passot  
Phase Dynamics of Nearly Stationary Patterns in Activator-Inhibitor Systems, *Phys. Rev. E.* **61**, 6471-6476 (2000).
- 49.** D. Laveder, T. Passot & P.L. Sulem  
Transverse collapse of low-frequency Alfvén waves; *Physica D* **152-153**, 694-704 (2001).
- 50.** D. Laveder, T. Passot & P.L. Sulem  
Transverse dynamics of dispersive Alfvén waves: I. Direct numerical evidence of filamentation; *Phys. Plasmas* **9**, 293-304 (2002).
- 51.** D. Laveder, T. Passot & P.L. Sulem  
Transverse dynamics of dispersive Alfvén waves: II. Driving of a reduced MHD flow; *Phys. Plasmas* **9**, 305-314 (2002).
- 52.** T. Passot & E. Vázquez-Semadeni  
The correlation between magnetic pressure and density in compressible MHD turbulence; *Astron. Astrophys.* **398**, 845-855 (2003).
- 53.** J. Lega & T. Passot  
Hydrodynamics of bacterial colonies: a model; *Phys. Rev. E.* **67**, (3), 031906 (2003); Virtual Journal of Biological Physics Research, Vol. 5, Issue 6, March 15, 2003.

54. D. Laveder, T. Passot, C. Sulem, P.L. Sulem, D. Wang & X.P. Wang  
Wave collapse in dispersive magnetohydrodynamics: direct simulations and envelope modeling; *Physica D* **184**, 237-258 (2003).
55. N. Ercolani, R. Indik, A.C. Newell & T. Passot  
Global description of patterns far from onset: a case study; *Physica D* **184**, 127-140 (2003).
56. A. Gazol & T. Passot  
Twofold effect of Alfvén waves on the transverse gravitational instability; *Astron. Astrophys.* **411**, 1-8 (2003).
57. T. Passot & P.L. Sulem  
Long-Alfvén-wave trains in collisionless plasmas. I. Kinetic theory; *Phys. Plasmas* **10**, 3887-3905 (2003).
58. T. Passot & P.L. Sulem  
Long-Alfvén-wave trains in collisionless plasmas. II. A Landau-fluid approach; *Phys. Plasmas* **10**, 3906-3913 (2003).
59. T. Passot & P.L. Sulem  
Filamentation instability of long Alfvén waves in warm collisionless plasmas; *Phys. Plasmas* **10**, 3914-3921 (2003).
60. T. Passot & P.L. Sulem  
A fluid description for Landau damping of dispersive MHD waves; *Nonlin Process. Geophys.* **11**, 245-258 (2004).
61. J. Lega & T. Passot  
Inverse cascade and energy transfer in forced low-Reynolds-number two-dimensional turbulence; *Fluid Dynamics Research* **34**, 289-297 (2004).
62. E. Kuznetsov, T. Passot & P.L. Sulem  
Compressible dynamics of magnetic field lines for incompressible MHD flows; *Phys. Plasmas* **11**, 1410-1415 (2004).
63. T. Passot & P.L. Sulem  
Alfvén wave filamentation: from Hall-MHD to kinetic theory; *Physica Scripta* **T113**, 89-91 (2004).
64. J. Lega & T. Passot  
Hydrodynamics of bacterial colonies: phase diagrams; *Chaos* **14**, 562-570 (2004); *Virtual Journal of Biological Physics Research*, Vol. 8, Issue 4, August 15 (2004).
65. T. Passot & P.L. Sulem  
A Landau fluid model for dispersive magnetohydrodynamics; *Phys. Plasmas* **11**, 5173-5189 (2004).
66. G. Bugnon, T. Passot & P.L. Sulem  
Landau-fluid simulations of MHD-wave instabilities in a warm collisionless plasma; *Nonlin. Process. Geophys.* **11**, 609-618 (2004).
67. J. Dreher, D. Laveder, R. Grauer, T. Passot, & P.L. Sulem  
Formation and disruption of Alfvénic filaments in Hall-magnetohydrodynamics; *Phys. Plasmas* **12**, 052319-1,052319-7 (2005).
68. T. Passot, C. Sulem & P.L. Sulem  
Linear versus nonlinear dissipation for critical NLS equation; *Physica D* **203**, 167-184 (2005).
69. P. Goswami, T. Passot & P.L. Sulem  
A Landau fluid model for warm collisionless plasmas; *Phys. Plasmas* **12**, 102109 (2005).
70. P. Hennebelle & T. Passot  
Influence of Alfvén waves on thermal instability in the interstellar medium; *Astron. Astrophys.* **448**, 1083-1093 (2006).
71. E. Vázquez-Semadeni, D. Ryu, T. Passot, R.F. González & A. Gazol  
Molecular cloud evolution. I. Molecular cloud and thin Cold Neutral Medium sheet formation; *Astrophys. J.* **643** 245-259 (2006).
72. T. Passot & P.L. Sulem  
A fluid model with finite Larmor radius effects for mirror mode dynamics; *J. Geophys. Res.* **111**, A04203, doi:10.1029/2005JA011425 (2006).
73. T. Passot, V. Ruban & P.L. Sulem  
Fluid description of trains of stationary mirror structures in a magnetized plasma; *Phys. Plasmas* **13**, 102310(1-10) (2006).
74. J. Lega & T. Passot  
Cover Illustration: Hydrodynamics of bacterial colonies; *Nonlinearity*, **20**, C1-C16 (2007).
75. E. Kuznetsov, T. Passot & P.L. Sulem  
Dynamical model for nonlinear mirror modes near threshold; *Phys. Rev. Lett.* **98**, 235003 (2007).
76. T. Passot, & P.L. Sulem  
Collisionless magnetohydrodynamics with gyrokinetic effects; *Phys. Plasmas*, **14**, 082502-(1-14), (2007).
77. D. Borgogno, T. Passot, & P.L. Sulem  
Magnetic holes in plasmas close to the mirror instability; *Nonlin. Process. Geophys.* **14**, 373-383 (2007).
78. E. Kuznetsov, T. Passot & P.L. Sulem  
Nonlinear theory of mirror instability near its threshold, *Pisma v ZhETF* **86**, 725-730 (2007) (*JETP Letters*, **86**, 637-642 (2007)).
79. C. Califano, P. Hellinger, E. Kuznetsov, T. Passot, P.L. Sulem & P. Travnicek  
Nonlinear mirror mode dynamics: simulations and modeling, *J. Geophys. Res.*, **113**, A08219, doi:10.1029/2007JA012898 (2008).
80. D. Borgogno, D. Laveder, T. Passot, C.Sulem & P.L. Sulem  
Filamentation of dispersive Alfvén waves in density channels: Hall-MHD description, *Phys. Plasmas*, **15**, 062302-(1-12) (2008).
81. V. Génot, E. Budnik, P. Hellinger, T. Passot, G. Belmont, P. Travnicek, P.L. Sulem, E. Lucek & I. Dandouras  
Mirror structures above and below the linear instability threshold: Cluster observations, fluid model and hybrid simulations, *Ann. Geophys.* **27**, 601-615 (2009).

- 82.** P. Hellinger, E. Kuznetsov, T. Passot, P.L. Sulem & P.M. Travnicek  
Mirror instability: From quasi-linear diffusion to coherent structures, *Geophys. Res. Lett.* **36**, L06103, doi:10.1029/2008GL036805 (2009) (Editor's highlight).
- 83.** E. Camporeale, D. D. Burgess & T. Passot  
Transient growth in stable collisionless plasma, *Phys. Plasmas Letters*, **16**, 030703-(1-4) (2009).
- 84.** D. Borgogno, P. Hellinger, T. Passot, P.L. Sulem & P.M. Travnicek  
Alfvén wave filamentation and dispersive phase mixing in a high density channel: Landau fluid and hybrid simulations, *Nonlin. Proc. Geophys.* **16**, 275-285 (2009).
- 85.** D. Laveder, D. Borgogno, T. Passot, & P.L. Sulem  
On the efficiency of semi-implicit schemes for the dispersive magnetohydrodynamics, *Computer Physics Communications*, **180**, 1860-1869 (2009).
- 86.** D. Laveder, L. Marradi, T. Passot & P.L. Sulem  
Dispersive MHD turbulence in one dimension, *Planetary and Space Science* **59**, 556-568 (2011).
- 87.** E. Camporeale, D. D. Burgess & T. Passot  
Implications of a non-modal linear theory for the marginal stability state and the dissipation of fluctuations in the solar wind, *Astrophys. J.* **715**, 260-270 (2010).
- 88.** G. Sánchez Arriaga, D. Laveder, T. Passot & P.L. Sulem  
Quasi-collapse of oblique solitons of the weakly-dissipative derivative nonlinear Schrödinger equation, *Phys. Rev. E.*, **82**, 016406 (15 pp.)(2010).
- 89.** D. Laveder, L. Marradi, T. Passot & P.L. Sulem  
Fluid simulations of mirror constraints on proton temperature anisotropy in solar wind turbulence, *J. Geophys. Res.*, **38**, L17108, doi:10.1029/2011GL048874 (2011).
- 90.** P. Hunana, D. Laveder, T. Passot, P.L. Sulem & D. Borgogno  
Reduction of compressibility and longitudinal transfer by Landau damping in turbulent magnetized plasmas, *Astrophys. J.*, **743**:128 (12pp) (2011).
- 91.** D. Laveder, T. Passot, P.L. Sulem & G. Sánchez Arriaga,  
Rogue waves in Alfvénic turbulence, *Phys. Letters A* **375**, 3997-4002 (2011).
- 92.** T. Passot, P.L. Sulem & P. Hunana  
Extending magnetohydrodynamics to the slow dynamics of collisionless plasmas, *Phys. Plasmas* **19**, 082113-(1-15) (2012);
- 93.** E. Kuznetsov, T. Passot & P.L. Sulem  
On the mirror instability in the presence of electron temperature anisotropy, *Phys. Plasmas Lett.* **19**, 090701 (2012).
- 94.** D. Laveder, T. Passot & P.L. Sulem  
Phase slips and dissipation of Alfvénic intermediate shocks and solitons, *Phys. Plasmas* **19**, 092116-(1-14) (2012).
- 95.** E. Kuznetsov, T. Passot & P.L. Sulem  
Nonlinear mirror modes in the presence of hot electrons, *Pis'ma ZhETF (JETP Letters)* **96**, 716-722 (2012); *Journal of Experimental and Theoretical Physics letter*, vol. 96, pp. 642-649 (2012).
- 96.** P. Hunana, M. L. Goldstein, T. Passot, P. L. Sulem, D. Laveder & G. P. Zank  
Polarization and compressibility of oblique kinetic Alfvén waves, *Astrophys. J.* **766**:93 (13pp) (2013).
- 97.** D. Laveder, T. Passot & P.L. Sulem  
Intermittent dissipation and lack of universality in one-dimensional Alfvénic turbulence, *Phys. Letters A.* **377**, 1535-1541 (2013).
- 98.** D. Laveder, T. Passot & P.L. Sulem  
Fluid simulations of non-resonant anisotropic ion heating, *Annales Geophys.* **31**, 1195-1204 (2013).
- 99.** P. Hellinger, T. Passot, P.L. Sulem & P. Travnicek  
Quasi-linear heating and acceleration in bi-Maxwellian plasmas, *Phys. Plasmas* **20**, 122306 (2013).
- 100.** E. Kuznetsov, T. Passot, V. Ruban & P.L. Sulem  
Subcritical mirror structures in an anisotropic plasma, *Pisma v ZhETF* **99**,1, pp. 1218 (2014) et *JETP Lett* **99**, Issue 1, 9-15 (2014).
- 101.** T. Passot, P. Henri, D. Laveder & P.L. Sulem  
Fluid simulations of ion scale plasmas with weakly distorted magnetic fields, *Eur. Phys. J. D* **68**, 207 (9pp) (2014).
- 102.** P.L. Sulem & T. Passot  
Landau fluid closures with nonlinear large-scale finite Larmor radius corrections for collisionless plasmas *J. Plasma Phys.* **81**, 325810103 (24 pages) (2015) (with Corrigendum)
- 103.** E.A. Kuznetsov, T. Passot, V.P. Ruban & P.L. Sulem  
Variational approach for static mirror structures *Phys. Plasmas* **22**, 042114 (2015).
- 104.** T. Passot & P.L. Sulem  
A model for the non-universal power law of the solar wind sub-ion-scale magnetic spectrum *Astrophys. J. Letters* **812**, L37 (2015).
- 105.** P.L. Sulem, T. Passot, D. Laveder & D. Borgogno  
Influence of the nonlinearity parameter on the solar-wind sub-ion magnetic energy spectrum: FLR-Landau fluid simulations, *Astrophys. J.* **818**:66 (2016).
- 106.** D. Borgogno, D. Laveder, T. Passot & P.L. Sulem  
Alfvén wave propagation through a moderate-amplitude transverse inhomogeneity in a magnetized plasma, *Phys. Plasmas* **23** 082902 (2016).
- 107.** E. Tassi, P.L. Sulem & T. Passot  
Reduced models accounting for parallel magnetic perturbations: gyrofluid and finite Larmor radius-Landau fluid approaches, *J. Plasmas Phys.* **82**, 705820601 (2016).

- 108.** S. Kobayashi, F. Sahraoui, T. Passot, D. Laveder, P. L. Sulem, S. Y. Huang, P. Henri & R. Smets  
Three-dimensional simulations and spacecraft data analysis of sub-ion solar wind turbulence: influence of Landau damping, *Astrophys. J.* **839**:122 (2017).
- 109.** T. Passot, P.L. Sulem & E. Tassi  
Electron-scale reduced fluid models with gyroviscous effects, *J. Plasma Phys.* **83**, 715830402 (2017).
- 110.** T. Passot, P.L. Sulem & E. Tassi  
Gyrofluid modeling and phenomenology of low- $\beta_e$  Alfvén wave turbulence, *Phys. Plasmas* **25**, 042107 (2018).
- 111.** D. Perrone, T. Passot, D. Laveder, F. Valentini, P. L. Sulem, Y. Zouganelis, P. Veltri & S. Servidio  
Fluid simulations of plasma turbulence at ion scales: comparison with Vlasov-Maxwell simulations, *Phys. Plasmas* **25**, 052302 (2018).
- 112.** E. Tassi, D. Grasso, D. Borgogno, T. Passot & P.L. Sulem  
A reduced Landau gyrofluid model for magnetic reconnection driven by electron inertia, *J. Plasma Phys.* **84**, 725840401 (2018).
- 113.** E. Bello-Benítez, G. Sánchez-Arriaga, T. Passot, D. Laveder, & E. Siminos  
Structure and evolution of magnetohydrodynamic solitary waves with Hall and finite Larmor radius effects, *Phys. Rev. E* **99**, 023202 (2019).
- 114.** T. Passot & P.L. Sulem  
Imbalanced kinetic Alfvén wave turbulence: from weak turbulence theory to nonlinear diffusion models for the strong regime, *J. Plasma Phys.* **85**, 905850301 (2019).
- 115.** G. Miloshevich, T. Passot & P.L. Sulem  
Modeling imbalanced collisionless Alfvén wave turbulence with nonlinear diffusion equations, *Astroph. J. Lett.* **888**:L7 (2020).
- 116.** E. Tassi, T. Passot & P.L. Sulem  
A Hamiltonian gyrofluid model based on a quasi-static closure, *J. Plasma Phys.* **86**, 835860402 (2020).
- 117.** G. Miloshevich, D. Laveder, T. Passot & P.L. Sulem  
Inverse cascade and magnetic vortices in kinetic Alfvén-wave turbulence, *J. Plasma Phys.* **87**, 905870201 (2021).
- 118.** F. Finelli, S. S. Cerri, F. Califano, F. Pucci, D. Laveder, G. Lapenta & T. Passot  
Bridging hybrid- and full-kinetic models with Landau-fluid electrons, *Astron. Astrophys.* **653** A156 (2021).
- 119.** R. Ferrand, F. Sahraoui, D. Laveder, T. Passot, P.L. Sulem & S. Galtier  
Fluid energy cascade rate and kinetic damping: new insight from 3D Landau-fluid simulations, *Astrophys. J.* **923**:122, (2021).
- 120.** P. Hunana, T. Passot, E. Khomenko, D. Martínez-Gómez, M. Collados, A. Tenerani, G.P. Zank, Y. Maneva, M.L. Goldstein, & G.M. Webb  
Generalized fluid models of the Braginskii type, *Astrophys. J. Supp.*, **260**:26 (2022).
- 121.** T. Passot, P.L. Sulem & D. Laveder  
Direct kinetic Alfvén wave energy cascade in the presence of imbalance, *J. Plasma Phys.* **88**, 905880312 (2022).
- 122.** S.S. Cerri, T. Passot, D. Laveder, P.L. Sulem & M. Kunz  
Turbulent Regimes in Collisions of 3D Alfvén-wave Packets, *Astrophys. J.* **939**:36, (2022).
- 123.** C. Granier, E. Tassi, D. Laveder, T. Passot & P.L. Sulem  
Influence of ion-to-electron temperature ratio on tearing instability and resulting subion-scale turbulence in a low- $\beta_e$  collisionless plasma, *Phys. Plasmas*, **31**, 032115 (2024).
- 124.** T. Passot, S.S. Cerri, C. Granier, D. Laveder, P.L. Sulem, E. Tassi  
Gyrofluid simulations of turbulence and reconnection in space plasmas, *Fundamental Plasma Phys.* **11**, 100055 (2024).
- 125.** P. Simon, F. Sahraoui, S. Galtier, D. Laveder, T. Passot & P.L. Sulem  
Impact of pressure anisotropy on the cascade rate of Hall-MHD turbulence with bi-adiabatic ions, *Phys. Rev. E*, **111**, 015210 (2025).

#### Publications soumises

- 126.** G. Ballerini, F. Califano, P. Henri, C. Simon Wedlund, L. Preisser, F. Pucci, F. Sporhykin, T. Passot, & P.L. Sulem  
Role of a turbulent solar wind in the anisotropy configuration of the magnetosheath of Mercury, submitted to *J. Geophys. Res.*

#### Publications en préparation

- 127.** S.S. Cerri, T. Passot, D. Laveder & P.L. Sulem  
Turbulence from counter- and co-propagating kinetic-Alfvén waves

## II. ACTES DE CONGRÈS ÉDITÉS

- 1.** T. Passot & P.L. Sulem, Nonlinear MHD Waves and Turbulence, (Nice, December 1–4, 1998). *Lecture Notes in Physics* **536**, Springer-Verlag (1999).
- 2.** P.L. Sulem, T. Passot, A. Chian & J. Büchner, Advances in Space Environment Turbulence, (Beaulieu, April 19–23, 2004), *Nonlin. Process. Geophys.* (Special Issue) **11**, 5/6 (2004).
- 3.** E. Falgarone & T. Passot, Turbulence and Magnetic Fields in Astrophysics, (IHP, Paris, July 2–6, 2001), *Lecture Notes in Physics* **614**, Springer-Verlag (2003).
- 4.** T. Passot, C. Sulem & P.L. Sulem Topics in Kinetic Theory (Toronto, 24 March 24–April 2, 2004), *Fields Institute Communications*, **46**, American Mathematical Society (2005).

5. T. Passot, R. Potelette, B. Tsurutani, T. Hada & P. - L. Sulem, Coupling between large and small scale turbulence in space and laboratory plasmas, *Nonlin. Process. Geophys.* (Special Issue) **15**, (2008).
  6. T. Passot & F. Califano, Special issue: Present achievements and new frontiers in space plasmas, *J. Plasma Physics* **81**, 321810101 (3 pages)(2015).
  7. T. Gibert & T. Passot  
Special issue: Pellat thesis prize winners, *J. Plasmas Phys.* **82** 691820401 (2016-).
  8. A. Bret, F. Califano, T. Passot, A. Schekochihin, L. Silva & D. Uzdensky  
Collection on "Fundamental problems of plasma astrophysics: new perspectives", *J. Plasma Phys.* (2016-).
  9. M. Argentina, S. Barland, P. Bouret, F. Cauneau, K. Guillouzoic, U. Kuhl, T. Passot, & F. Planchon  
Proceedings of the Complex Systems Academy of Excellence 2018.
  10. T. Passot, E. Tassi & and H. Qin  
Collection on "Hamiltonian Methods in Plasma Physics", *J. Plasma Phys.* (2020-).
- 
- ### III. ACTES DE CONFÉRENCES
- Certains documents sont parus dans des revues et la plupart a été évalué par un comité de lecture*
1. J. Léorat, A. Pouquet, J.P. Poyet & T. Passot  
Spectral Simulations of 2-D Compressible Flows; *Ninth International Conference on Numerical Method in Fluid Dynamics*, Lectures Notes in Physics, **128**, 368-374, Springer Verlag (1985).
  2. J. Elaoufir, A. Mangeney, C.C. Harvey, L. Guerin, T. Passot & C.T. Russel  
Nonlinear MHD waves generated by reflected protons from the Earth's bow shock; *Turbulence and Anomalous Transport in Magnetized Plasmas*; Proceedings of the International Workshop on Small Scale Turbulence and Anomalous Transport in Magnetized Plasmas, Ecole Polytechnique, Palaiseau, France; 335 pp. p.209-20 (1986).
  3. T. Passot, M. Souli & A.C. Newell  
Rayleigh-Bénard Convection at Finite Rayleigh Number in Large Aspect Ratio Boxes; in *New Trends in Nonlinear Dynamics and Pattern Forming Phenomena: The Geometry of Non-Equilibrium*, Huerre, P. & Couillet, P. eds. (1988), NATO ASI SERIES, Series **B237**, Plenum, New-York (1990).
  4. A. Pouquet & T. Passot  
Numerical Simulations of Turbulent Supersonic Flows; *Advances in Compressible Turbulent Mixing*, W.P. Dannevik, A.C. Birmingham, C.E. Leith eds., Princeton Meeting, October 1988, 543-552.
  5. J. Léorat, T. Passot & A. Pouquet  
Structure Formation in Self-Gravitating Flows; *Topological Fluid Mechanics*, H.K. Moffat and A. Tsinober eds., Proceedings of the IUTAM Symposium, 777-781, Cambridge University Press (1989).
  6. A.C. Newell, T. Passot & M. Souli  
Focus Instability in Axisymmetric Rayleigh-Bénard Convection; in *IUTAM Symposium on Nonlinear Hydrodynamic Stability and Transition*, Nice, September 1989; Ed. G. Iooss. *Eur. J. Mech. B-Fluids* **10**, 151-157 Suppl. S (1991).
  7. A.C. Newell, T. Passot & M. Souli,  
Phase-mean drift equation for convection patterns in large aspect ratio containers; in *Nonlinear Evolution of Spatio-Temporal Structures in Dissipative Continuous Systems*, Ed. F.H. Busse, L. Kramer, NATO ASI Series **B225**, p. 197, Plenum Press (1990).
  8. A. Pouquet, T. Passot & J. Léorat  
Numerical Simulations of Compressible Flows; in *Fragmentation of Molecular Clouds and Star Formation*, E. Falgarone, F. Boulanger and G. Duvert. eds., Proceedings of the IAU symposium **147**, (Grenoble), 101-118 (1990).
  9. A. Pouquet, J. Léorat & T. Passot  
Turbulence and Gravitation in *Advances in Turbulence III*, A. Johansson and P.H. Alfredsson. eds. (Stockholm, July 1990), Springer Verlag, 343-350 (1991).
  10. T. Passot & A.C. Newell  
The Phase-Diffusion Equation and its Regularization for Natural Convective Patterns; in *Large-Scales Structures in Nonlinear Physics*, J.D. Fournier and P.L. Sulem eds., (Villefranche sur Mer, January 14-18, 1991), Springer Verlag, Lecture Notes in Physics **392**, 1-20.
  11. A. Pouquet & T. Passot  
Numerical Simulations of Turbulent Supersonic Flows; in *Advances in Compressible Turbulent Mixing*, Conf-8810234, W.P. Dannevik, A.C. Buckingham, C.E. Leith Eds., January 1, 1992.
  12. T. Passot, E.C. Vázquez-Semadeni & A. Pouquet  
A turbulent model for the interstellar medium; in *Numerical Simulations in Astrophysics*, Proceedings of the First UNAM-CRAY Supercomputing Conference, Mexico city, J. Franco et al. eds., Cambridge University Press, 246-250 (1993).
  13. T. Passot, H. Politano, P.L. Sulem, J.R. Angillela & M. Meneguzzi  
Vortex tubes in homogeneous turbulence; in *Advances in Turbulence V* (Siena July 1994), R. Benzi ed. 408-412, Kluver (1995).
  14. T. Passot & P.L. Sulem  
Nonlinear dynamics of dispersive Alfvén waves; in *Small-scale Structures in three-dimensional hydrodynamic and magnetohydrodynamic turbulence*, M. Meneguzzi, A. Pouquet & P.L. Sulem eds., (Nice, January 10-13, 1995), Springer Verlag, Lecture Notes in Physics **462**, 405-410 (1995).

15. E.C. Vázquez-Semadeni, T. Passot & A. Pouquet  
MHD turbulence, cloud formation and star formation in the ISM; *Fifth Mex-Tex Meeting in Astrophysics. Gaseous Nebulae and Star Formation*, M. Peña y S. Kurtz eds., *Rev. Mex. Astron. Astrof. Ser. Conf.* **3**, 61–68 (1995).
16. A. Pouquet, T. Passot & E.C. Vázquez-Semadeni  
Dynamical evolution of the turbulent interstellar medium at the kiloparsec scale; School on *numerical methods for astro and geophysical flows*, J. Ferziger & O. Métais, eds. (Les Houches), Editions de Physique Paris, Springer, 291-298 (1997).
17. E.C. Vázquez-Semadeni, T. Passot & A. Pouquet  
Highly Compressible MHD Turbulence and Gravitational Collapse; 7th Annual Maryland Conference on *Astrophysics. Star Formation, Near and Far*, S. S. Holt and L. G. Mundy, eds. (New York: AIP Press), AIP Conference Proceedings **393**, 85-88 (1997).
18. Y. Ponty, T. Passot & P.L. Sulem  
Rotating convection at moderate Prandtl number; Vth International Bar-Ilan Conference on *Frontiers in Condensed Matter Physics* (31 March -3 April 1997, Bar-Ilan University, Ramat-Gan, Israel), *Physica A.* **249**, 146-150 (1998).
19. A. Gazol Patiño, S. Champeaux, T. Passot & P.L. Sulem  
Heating by Alfvén wave filamentation in the solar corona and the interstellar medium; Proc. *VI Tex-Mex Conference on Astrophysics: Astrophysical Plasmas-Near and Far*, S. Torres and R.J. Dufour eds., *Revista Mexicana de Astronomía y Astrofísica*, Serie de Conferencias, **7**, 129-132 (1998).
20. T. Passot & E. Vázquez-Semadeni,  
Probability distribution of the density field in one dimensional gas dynamics; in *Fluid Mechanics and its applications*, U. Frisch ed. *Advances in Turbulence VII*, Kluwer, A. publ., 411-414 (1998).
21. E. Vázquez-Semadeni & T. Passot,  
Turbulence as an organizing agent in the ISM; in *Interstellar Turbulence*, P. Franco & A. Carraminana eds., Cambridge University Press, 223-231 (1999).
22. S. Champeaux, A. Gazol, T. Passot & P.L. Sulem,  
Alfvén wave filamentation and plasma heating; in *Non-linear MHD Waves and Turbulence*, T. Passot and P.L. Sulem eds. (Nice, Dec. 1-4, 1998), Springer Verlag, Lecture Notes in Physics **536**, 54-82 (1999).
23. A. Gazol, T. Passot & P.L. Sulem,  
On the reduced MHD for compressible fluids; *Revista Mexicana de Astronomía y Astrofísica*, Serie de Conferencias, **9**, 80–82 (2000).
24. D. Laveder, T. Passot & P.L. Sulem,  
Instabilities and filamentation of dispersive Alfvén waves; in *Computational Fluid Dynamics*, Proceedings of the fourth UNAM Supercomputing Conference; E. Ramos, G. Cisneros, R. Fernández-Flores and A. Santillán-González, eds. (Mexico City, June 27-30 2000), 16-27 (2001), World Scientific Publishing Co.
25. E. Vázquez-Semadeni & T. Passot  
The density probability distribution function in turbulent, isothermal, magnetized flows in a slab geometry; in *Computational Fluid Dynamics*, Proceedings of the fourth UNAM Supercomputing Conference; E. Ramos, G. Cisneros, R. Fernández-Flores and A. Santillán-González, eds. (Mexico City, June 27-30 2000), 88–95 (2001), World Scientific Publishing Co.
26. D. Laveder, T. Passot & P.L. Sulem,  
Direct numerical simulation of Alfvén-wave filamentation in Hall-MHD; Proc. 2000 International Congress on Plasma Physics (Quebec City, Oct. 23-27, 2000), 204-207; résumé dans *Bul. Amer. Phys. Soc.* **45** (7), 69 (2000).
27. T. Passot & P.L. Sulem,  
A fluid description of kinetic effects for Alfvén wave trains; Proceedings of the Solar Wind 10 Conference (Pisa, Italy, June 17-21 2002), M. Velli, R. Bruno and F. Malara eds., AIP Conference Proceedings **CP679**, 497-500 (2003).
28. D. Laveder, T. Passot & P.L. Sulem,  
A possible mechanism for the formation of filamentary structures in space plasmas; in *SF2A: Scientific Highlights 2002*, F. Combes & D. Barret eds., EDP Sciences, 113–116 (2002).
29. E. Vázquez-Semadeni, A. Gazol, T. Passot & J. Sánchez-Salcedo  
Thermal Instability and Magnetic Pressure in the Turbulent Interstellar Medium; in *Turbulence and Magnetic Fields in Astrophysics*, E. Falgarone & T. Passot eds., Springer Verlag, Lecture Notes in Physics, **614**, 213-251 (2003).
30. G. Bugnon, R. Goswami, T. Passot & P.L. Sulem  
Towards fluid simulations of dispersive MHD waves in a warm collisionless plasma; in *Dynamical Processes in Critical Regions of the Heliosphere*, R. von Steiger and M. Gedalin eds., *Adv. Space Res.* **38**, 93-100 (2006).
31. T. Passot  
From kinetic to fluid descriptions of plasmas; in *Topics in Kinetic Theory*, T. Passot, C. Sulem and P.-L. Sulem eds. , American Mathematical Society, Fields Institute Communications **46**, 213-242 (2005).
32. T. Passot & P.L. Sulem  
Landau fluid model for weakly nonlinear dispersive magnetohydrodynamics; in *Magnetic Fields in the Universe: from Laboratory and Stars to Primordial Structures*, E. M. de Gouveia Dal Pino, G. Lugones and A. Lazarian eds., AIP Conference Proceedings **784**, 65-75 (2005).
33. T. Passot & P.L. Sulem  
Landau fluid model for weakly nonlinear dispersive magnetohydrodynamics; 32nd EPS Conference on Plasma Physics (Taragona, 27June - 1 July 2005) B.Ph. van

- Milligen & C. Hidalgo eds. ECA, **29C**, O-2.017, (2005), CD-Rom.
- 34.** T. Passot, & P.L. Sulem  
Stability and formation of mirror structures: a fluid approach; Proceedings of the Vlasovia 2006 conference (Florence, Italy, Sept. 18-20 2006), *Commun. Nonlinear Sci. Numer. Simul.* **13**, 141-146, (2008), doi:10.1016/j.cnsns.2007.04.001.
- 35.** P.L. Sulem & T. Passot  
FLR Landau fluids for collisionless plasmas; Proceedings of the Vlasovia 2006 conference (Florence, Italy, Sept. 18-20 2006), *Commun. Nonlinear Sci. Numer. Simul.* **13**, 189-196, (2008), doi:10.1016/j.cnsns.2007.05.002.
- 36.** P. Hennebelle & T. Passot  
Influence of the magnetic field on the thermal condensation; in *Small Ionized and Neutral Structures in the Diffuse Interstellar Medium*, ASP Conference Series, Haverkorn, M.& Goss, W.M. eds., **365**, 170-173 (2007).
- 37.** P.L. Sulem & T. Passot  
Anisotropic MHD with gyrokinetic effects in *Turbulence and nonlinear processes in Astrophysical Plasmas* (6th Annual International Astrophysics Conference, Hawaii, March 16-22, 2007), D. Shaikh, G.P. Zank Eds., AIP Conference Proceedings **932**, 406-414 (2007).
- 38.** P.L. Sulem & T. Passot  
Nonlinear mirror mode structures; electronic edition of the SF2A Scientific Highlights (Grenoble, 2-6 juillet 2007), J. Bouvier, A. Chalabaev & C. Charbonnel Eds., p. 611 (<http://www.sf2a.asso.fr>).
- 39.** E. Kuznetsov, T. Passot & P.L. Sulem  
Formation of mirror structures near instability threshold; *New Aspects of Plasma Physics: Proceedings of the 2007 ICTP Summer College on Plasma Physics, Trieste 30 July–24 August 2007*, P.K. Shukla, L. Stenflo and B. Eliasson eds., World Scientific Publishing, 221-231 (2008).
- 40.** P.L. Sulem, T. Passot & L. Marradi  
Landau fluid models for magnetized plasmas; in *2008 ICTP International Workshop on the Frontiers of Modern Plasma Physics, Trieste 14-25 July 2008*, P.K. Shukla, B. Eliasso and L. Stenflo eds., AIP Conference Proceedings, **1061**, 227-236 (2009).
- 41.** T. Passot, P.L. Sulem, P. Hellinger & E. Kuznetsov,  
Influence of kinetic effects on the shape of mirror structures, *Proceedings of the International Symposium on Cutting Edge Plasma Physics*, B. Eliasso and P.K. Shukla eds., AIP Conference Proceedings, **1188**, 205-212 (2009).
- 42.** P.L. Sulem, T. Passot, D. Laveder and D. Borgogno,  
Alfvén wave filamentation and dispersive phase mixing, *Proceedings of the International Symposium on Cutting Edge Plasma Physics*, B. Eliasson and P.K. Shukla eds., AIP Conference Proceedings, **1188**, 224-232 (2009).
- 43.** E. Kuznetsov, T. Passot, P.L. Sulem and P. Hellinger  
Nonlinear mirror structures in a plasmas with thermal pressure anisotropy, *Plasmas in the Laboratory and in the Universe: interactions, patterns, and turbulence*, G. Bertin, F. De Luca, G. Lodato, R. Pozzoli, M. Romé, eds, AIP Conference Proceedings, **1242**, 164-174 AIP Conference Proceedings, (American Institute of Physics, 2010).
- 44.** P.L. Sulem & T. Passot  
Fluid modeling of magnetized plasmas with anisotropic temperatures, *Wave and Instabilities in Space and Astrophysical Plasmas*, P.L. Sulem & Mond eds. (Eilat, Israel, June 19-24, 2011), AIP Conference Proceedings (American Institute of Physics), **1439**, 94-110 (2012).
- 45.** P. Hunana, M. L. Goldstein, T. Passot, P. L. Sulem, D. Laveder & G. P. Zank  
Properties of kinetic Alfvén waves : a comparison of fluid models with kinetic theory; Proceedings of the Solar Wind 13 Conference, AIP Conference Proceedings (American Institute of Physics), **1539**, 179-182 (2013).

#### IV. AUTRES PUBLICATIONS

- 1.** L. Guerin & T. Passot  
Etude des ondes magneto-hydrodynamiques générés par les protons réfléchis par l'onde de choc de la terre; 1983, Rapport de fin d'études à l'Ecole Polytechnique sous la direction d'A. Mangeney, Département de Recherche Spatiale et Groupes d'Astronomie Spatiale, Observatoire de Meudon.
- 2.** T. Passot  
Simulations d'écoulements fluides autogravitants; 1984, Rapport de stage de D.E.A., sous la direction de J. Léorat, LAM, Observatoire de Meudon.
- 3.** T. Passot & A. Pouquet  
Expérimentation Numérique sur la Turbulence Compressible à Deux Dimensions : le Cas du Gaz Parfait; in *Écoulements turbulents compressibles*, Colloque DRET-ONERA, Ecole Nationale Supérieure de Mécanique et Aérotechnique (Poitiers, 10-12 Mars 1986), 87-100.
- 4.** T. Passot  
Le Test de Painlevé; in *Méthodes Mathématiques pour l'Astrophysique*, M. Auvergne and A. Baglin eds., Comptes Rendus de l'Ecole de Goutelas ( 14-19 Avril 1986), 161-170.
- 5.** T. Passot  
Numerical Simulations of Compressible Turbulence; Publication de l'Observatoire de Nice (1987).
- 6.** T. Passot  
Simulations numériques d'écoulements compressibles homogènes en régime turbulent: application aux nuages moléculaires; Thèse de Doctorat, Université de Paris VII (1987).
- 7.** A. Pouquet & T. Passot  
Turbulence Compressible Homogène: Résultats de Simulations Numériques Directes; Congrès AAAF, Marseille, Octobre 1990.



- 8.** T. Passot  
Dynamique des textures convectives–Ecoulements compressibles astrophysiques; Habilitation à diriger des recherches, Université de Nice–Sophia Antipolis (1991).
- 9.** T. Passot  
Pseudo-Spectral Methods; a Tutorial Approach; in *European Workshop on “Collisionless Shocks”*, B. Lembège, organizer, Proceedings, CNET/CRPE, March 11-13 1991, 48-50.
- 10.** T. Passot  
The Phase–Diffusion Mean Drift Equation for Natural Convection Patterns; in *Patterns in Fluid Flow*, B. Young et al. eds., Summer Study Program in Geophysical Fluid Dynamics, Woods-Hole, 138-148 (1991).
- 11.** E. Vázquez-Semadeni, T. Passot & A. Pouquet  
A Turbulent Model for the Interstellar Medium; *Bull. Am. Astr. Soc.* **25**, n° 4, 1462 (1993).
- 12.** E. Vázquez-Semadeni, T. Passot & A. Pouquet  
A Turbulent Model for the Interstellar Medium with magnetic fields and rotation; *Bull. Am. Astr. Soc.* **26**, n° 4, 1478 (1994).
- 13.** T. Passot & E.C. Vázquez-Semadeni  
Turbulence dans le milieu interstellaire; *Journal des Astronomes Français*, **55**, 12-16 (Décembre 1997).
- 14.** E. Vazquez-Semadeni, J. Scalo, D. Chappell and T. Passot  
On the Density Distribution Function of Interstellar Gas, *Bull. Am. Astr. Soc.*, **29**, 1244 (1997).
- 15.** S. Champeaux, T. Passot & P.L. Sulem  
Alfvén wave collapse in the small-dispersion limit, *Annales Geophysicae* **16** Supplement III, C870 (1998).
- 16.** B. Pichardo, E. Vazquez-Semadeni, J. Ballesteros-Paredes, A. Gazol & T. Passot  
A Turbulent Model of the Interstellar Medium. Three-Dimensional Simulations; *Bull. Am. Astr. Soc.* **30**, 1343 (1998).
- 17.** E. Vázquez-Semadeni, T. Passot & A. Gazol  
Influence of Shells on the Global SFR; *Bull. Am. Astr. Soc.* **31**, n° 3, 926 (1999).
- 18.** S. Champeaux, T. Passot & P.L. Sulem  
Alfvén wave filamentation; *APS Meeting Abstracts*, C105 (1999).
- 19.** T. Passot, D. Laveder, Y. Ponty & P.L. Sulem  
Scaling of the correlation length in rotating convection; *Résumé, ICTAM congress*, Chicago, Août 2000.
- 20.** D. Laveder, T. Passot & P.L. Sulem  
Alfvén-wave filamentation and structure formation in dispersive MHD; *Geophys. Res. Abstracts* **3**, 6776 (2001).
- 21.** T. Passot, D. Laveder & P.L. Sulem  
Alfvén wave filamentation; *APS Meeting Abstracts*, 1005 (2002).
- 22.** T. Passot & P.L. Sulem  
A kinetic model for low-frequency Alfvén wave trains; *Geophys. Res. Abstracts* **5**, 03739 (2003).
- 23.** E. Falgarone & T. Passot  
Preface of *Turbulence and magnetic fields in astrophysics*, *LNP* **614** (2003).
- 24.** T. Passot & P.L. Sulem  
Fluid description for dispersive MHD waves in a collisionless plasma; *Geophys. Res. Abstracts* **6**, 01747 (2004).
- 25.** E. Vazquez-Semadeni, D. Ryu, T. Passot, R. Gonzalez & A. Gazol  
Thin CNM Sheet and Molecular Cloud Formation; *American Astronomical Society Meeting Abstracts* **207**, 119.05, Bulletin of the American Astronomical Society, Vol. 37, p.1359 (2005).
- 26.** E. Vazquez-Semadeni, D. Ryu, T. Passot, R. Gonzalez & A. Gazol  
Initial Stages of Molecular Cloud Evolution, *Protostars and Planets V*, 8471 (2005).
- 27.** P.L. Sulem, V. Ruban & T. Passot  
A fluid description of mirror instability and mirror mode structures; *Geophys. Res. Abstracts* **8**, 01974 (2006).
- 28.** T. Passot, M. Berthomier, R. Pottellette and P.L. Sulem  
Transverse Alfvén wave instabilities and filament formation; *Geophys. Res. Abstracts* **8**, 02647 (2006).
- 29.** S. Savin, E. Amata, T. Passot, P.L. Sulem, E. Lucek, L. Zelenyi, A. Skalsky, N. Shevyrev, J. Blecki, J. Buechner  
On the origin and role of plasma jets with anomalous dynamic pressure in interaction of plasma flow with magnetosphere; 36th COSPAR Scientific Assembly. p.1004 (2006).
- 30.** E. Amata, S. Savin, T. Passot, P.L. Sulem, M. Dunlop, J. Blecki, J. Buechner, J.L. Rauch, V. Smirnov, D. Novikov  
A nonlinear Alfvénic coherent Structure as Plasma Flow Terminator; *Geophys. Res. Abstracts* **9**, 08596 (2007).
- 31.** P.L. Sulem, T. Passot, D. Borgogno  
Generalized MHD for weakly nonlinear waves in the gyrokinetic regime; *Geophys. Res. Abstracts* **9**, 06129 (2007).
- 32.** E. Kuznetsov, T. Passot, P.L. Sulem, F. Califano, P. Hellinger, P. Travnicek  
Theory and simulations of nonlinear mirror modes near instability threshold; *Geophys. Res. Abstracts* **9**, 06077 (2007).
- 33.** P. Hellinger, P. Travnicek, T. Passot, P.L. Sulem, E.A. Kuznetsov, C. Califano,  
Mirror instability near the threshold: Hybrid simulations; *American Geophysical Union, Fall Meeting 2007* abstract SM23D-05, 2007AGUFMSM23D..05H (2007).

34. P. Hellinger, P. Travnicek, T. Passot, P.L. Sulem, E.A. Kuznetsov, C. Califano, Nonlinear mirror instability: humps and holes; *Geophys. Res. Abstracts* **10** EGU2008-A-03412 (2008).
35. T. Passot, D. Laveder, L. Marradi, G. Sanchez-Arriaga & P.L. Sulem  
Turbulence in dispersive MHD; *American Geophysical Union, Fall Meeting 2008*, abstract SH41C-06.
36. P. Hellinger, P. Travnicek, T. Passot, P.L. Sulem & E.A. Kuznetsov,  
Mirror Instability: Quasi-linear Effects; *American Geophysical Union, Fall Meeting 2008*, abstract SM51A-1622.
37. E. Camporeale, D. Burgess & T. Passot  
Transient growth and bypass transition in a Landau fluid plasma; *Geophysical Research Abstract*, Vol. 11, EGU2009-7751, 2009.
38. T. Passot & P.L. Sulem  
Turbulence et structures dans les plasmas magnétisés: rôle des effets cinétiques; Résumé de l'intervention invitée dans les journées scientifiques 2010 de l'URSI: Propagation et plasmas: nouveaux enjeux, nouvelles applications; 16-17 mars 2010, CNAM, Paris ([http : //intelligence.eu.com/URSI – F2010/output\\_airectory/cd1/data/index.html](http://intelligence.eu.com/URSI-F2010/output_airectory/cd1/data/index.html)).
39. E. Camporeale, T. Passot & D. Burgess  
Non-modal Plasma Stability in the Solar Wind; *American Geophysical Union, Fall Meeting 2009*, abstract # SH53A-1290
40. B. Tsurutani, G. Morales & T. Passot  
Interactive Workshop Discusses Nonlinear Waves and Chaos; *Eos, Transactions American Geophysical Union*, Volume 91, Issue 27, p. 239-239 (2010).
41. T. Passot, P.L. Sulem & D. Laveder  
Rogue waves in Alfvénic turbulence *Geophysical Research Abstract*, Vol. 14, EGU2012-3592, 2012.
42. P.L. Sulem, T. Passot & D. Laveder  
Temporal intermittency of Alfvénic turbulence dissipation: effect of intermediate shock instabilities *Geophysical Research Abstract*, Vol. 14, EGU2012-3407-1, 2012.
43. P. Hunana, M.L. Goldstein, T. Passot, P.L. Sulem, D. Laveder & G.P. Zank  
Polarization and compressibility of oblique kinetic Alfvén waves, *American Geophysical Union, Fall Meeting 2012*, abstract # SH51B-2252.
44. T. Passot, P.L. Sulem & D. Laveder  
Landau-fluid simulations of non-resonant heating in a turbulent magnetized plasma *Geophys. Res. Abstracts* vol. 15, EGU2013-1507, 2013.
45. P.L. Sulem, T. Passot, D. Laveder, P. Hunana & P. Henri  
Constraints on fluid modeling of magnetized collisionless plasmas *Geophys. Res. Abstracts* vol. 15, EGU2013-1461, 2013.
46. T. Passot, P.L. Sulem & D. Laveder  
Landau-fluid simulations of non-resonant heating in a turbulent magnetized plasma, *Geophys. Res. Abstracts* vol. 15, EGU2013-1507, 2013.
47. M. Faganello, F. Califano, T. Passot, P.L. Sulem, S. Cerri & F. Pegoraro  
A fluid-kinetic model for describing geometrically complex systems, *Geophys. Res. Abstracts* vol. 15, EGU2013-7463, 2013.
48. P. Hunana, M.L. Goldstein, G.P. Zank, T. Passot, P.L. Sulem & D. Laveder  
Fluid Simulations of the Spectral Break Observed in Magnetic Field Power Spectra at the Proton Gyroscale, *American Geophysical Union, Fall Meeting 2013*, abstract # SH51C-2125.
49. P.L. Sulem, T. Passot, D. Laveder & P. Henri  
Fluid simulations of space plasmas at ion scales, *Geophys. Res. Abstracts* vol. 16, EGU2014-2884 (2014).
50. T. Passot & P.L. Sulem  
Fluid modeling for ion scale space plasmas, *Geophys. Res. Abstracts* vol. 16, EGU2014-2903 (2014).
51. P. Hellinger, P.M. Travnicek, T. Passot, P.L. Sulem, L. Matteini & S. Landi  
Protons and alpha particles in the solar wind, *Geophys. Res. Abstracts* vol. 16, EGU2014-5990 (2014).
52. T. Passot, D. Laveder & P.L. Sulem  
Fluid simulations of Alfvénic turbulence at ion scales, *EGU General Assembly Conference Abstracts*, **17**, 9734 (2015).
53. F. Pucci, P. Henri, F. Califano, S. Servidio, M. Faganello, T. Passot, P.L. Sulem, & G. Lapenta  
Multi-Scale Physics in Velocity Shear Driven Vortices in Space Plasmas, *American Geophysical Union, Fall Meeting 2018*, abstract # SM13B-2837 (2018).
54. F. Pucci, P. Henri, F. Califano, S. Servidio, M. Faganello, T. Passot, P.L. Sulem, & G. Lapenta  
Generation of magnetic holes in Kelvin-Helmholtz instability in magnetized plasmas, *EGU General Assembly Conference Abstracts*, **21**, EGU2019-8561 (2019).
55. R. Ferrand, F. Sahraoui, D. Laveder, T. Passot, P.L. Sulem & S. Galtier  
The relationship between the fluid energy cascade and kinetic damping rates revealed by Landau-fluid simulations, *AGU Fall Meeting Abstracts*, SH24A-02 (2021).
56. S.S. Cerri, T. Passot, D. Laveder, P.L. Sulem & M.W. Kunz  
Turbulent regimes in 3D Alfvén-wave-packet collisions, 44th COSPAR Scientific Assembly. Held 16-24 July 44, 1494 (2022).
57. S.S. Cerri, T. Passot, D. Laveder, P.L. Sulem, M.W. Kunz  
Turbulent Regimes from Interactions of 3D Alfvén-Wave/Kinetic-Alfvén-Wave Packets, *AGU Fall Meeting Abstracts*, SH53B-01 (2023).

58. C.S. Wedlund, F. Pucci, L. Preisser, P. Henri, E. Behar, G. Ballerini, F. Califano, T. Passot, P.L. Sulem, A. Settino

Interaction between non-linear plasma structures and collisionless shocks: magnetic holes vs cometary

shock, European Geosciences Union General Assembly (EGU24) (2024).