List of publications

F. Rincon

◆ Habilitation thesis (HDR)

- **F. Rincon**. Instabilités, turbulence et champs magnétiques dans les fluides et plasmas astrophysiques. Université Paul Sabatier Toulouse III (2020).

◆ Review papers (peer-reviewed)

2. **F. Rincon**. Dynamo theories. 167 pages, published in *J. Plasma Phys. (lecture note series)* **85**, 205850401 (2019). (4 referees)

1. **F. Rincon** and M. Rieutord. The Sun's supergranulation. 74 pages, published in *Living Rev. Solar Phys.* **15**, 6 (2018). (4 referees)

◆ Viewpoints and commentaries

1. **F.Rincon**. Turbulence in Collisionless Cosmic Plasmas. *Physics* **16**, 68 (2023).

◆ Articles in peer-reviewed journals

34. **F. Rincon**. Ultimate large-Rm regime of the solar dynamo. *Astron. & Astrophys Lett.* **707**, L3 (2026).

33. **F. Rincon**, P. Barrère, T. Roudier. Observational characterisation of large-scale transport and horizontal turbulent diffusivity in the quiet Sun. *Astron. & Astrophys.* **696**, A143 (2025).

32. J. Kempf, **F. Rincon**. Non-linear saturation and energy transport in global simulations of magneto-thermal turbulence in the stratified intracluster medium. *Astron. & Astrophys.* **694**, A25 (2025).

31. J. Jacquemin-Ide, **F. Rincon**, A. Tchekhovskoy, M. Liska. Magnetorotational dynamo can generate large-scale vertical magnetic fields in 3D GRMHD simulations of accreting black holes. *MNRAS* **532**, 1522 (2024).

30. J. Kempf, **F. Rincon**, N. Clerc. Dynamical properties and detectability of the magneto-thermal instability in the intracluster medium. *Astron. & Astrophys.* **680**, A24 (2023).

29. **F. Rincon**. Helical turbulent nonlinear dynamo at large magnetic Reynolds numbers. *Phys. Rev. Fluids* **6**, L121701 (2021).

28. **F. Rincon**, T. Roudier, A. A. Schekochihin and M. Rieutord. Supergranulation and multiscale flows in the solar photosphere: Global observations vs. a theory of anisotropic turbulent convection. *Astron. & Astrophys.* **599**, A69 (2017).

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26. **F. Rincon**, F. Califano, A. A. Schekochihin and F. Valentini. Turbulent dynamo in a collisionless plasma. *Proc. Nat. Acad. Sci.* **113**, 3950 (2016).

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24. S. Rawat, C. Cossu and **F. Rincon**. Travelling-wave solutions bifurcating from relative periodic orbits in plane Poiseuille flow. *Comptes Rendus Mécanique* **344**, 448 (2016).

23. **F. Rincon**, A. A. Schekochihin and S. C. Cowley. Nonlinear mirror instability. *MNRAS* **447**, L45 (2015).

22. A. Riols, **F. Rincon**, C. Cossu, G. Lesur, G. I. Ogilvie and P.-Y. Longaretti. Dissipative effects on the sustainement of a magnetorotational dynamo in Keplerian shear flow. *Astron. & Astrophys.* **575**, A14 (2015).

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20. S. Rawat, C. Cossu and **F. Rincon**. Relative periodic orbits in plane Poiseuille flow. *Comptes Rendus Mécanique* **342**, 485 (2014).

19. A. Riols, **F. Rincon**, C. Cossu, G. Lesur, P.-Y. Longaretti, G. I. Ogilvie and J. Herault. Global bifurcations to subcritical magnetorotational dynamo action in Keplerian shear flow. 45 pages, *J. Fluid Mech.* **431**, 1 (2013). (3 referees)

18. J. Herault, **F. Rincon**, C. Cossu, G. Lesur, G. I. Ogilvie and P.-Y. Longaretti. Periodic magnetorotational dynamo action as a prototype of nonlinear magnetic field generation in shear flows. *Phys. Rev. E* **84**, 036321 (2011).

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15. M. Rieutord, T. Roudier, **F. Rincon**, J. M. Malherbe, N. Meunier, T. Berger, and Z. Frank. On the power spectrum of solar surface flows. *Astron. & Astrophys.* **512(A4)**, 11 (2009).

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11. **F. Rincon**. Instabilités et turbulence dans les disques d'accrétion astrophysiques. Proceedings du congrès de la division plasma de la Société Française de Physique, Toulouse, Mar. 2014 (2014).

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