

Benjamin FAVIER

Address : Technopôle de Château-Gombert - 49 rue Frédéric Joliot Curie
BP 146 13384 Marseille Cedex 13, France
Phone : +33 (0)4 13 55 20 52
E-mail : favier@irphe.univ-mrs.fr
Webpage : <http://sites.google.com/site/bfavierhome/>

Academic experience

2014–present : **CNRS RESEARCHER** (*IRPHE UMR 7342, Marseille, France*).
2013–2014 : **LECTURER** (*Centre for Mathematical Science, City University London*).
2011–2013 : **RESEARCH ASSOCIATE & SUPERVISOR** (*DAMTP, University of Cambridge*).
2010–2011 : **RESEARCH ASSOCIATE** (*School of Mathematics and Statistics, Newcastle Uni.*).
2009–2010 : **RESEARCH AND TEACHING ASSISTANT** (*LMFA, France*).
2006–2009 : **PHD & TEACHING ASSISTANT** (*LMFA, École Centrale de Lyon, France*).

Research interests

- Direct Numerical Simulations in Fluid mechanics.
- Rotating and stratified flows, inertial and internal waves, elliptical instability.
- Thermal convection.
- Dynamo theory, magnetohydrodynamics, Alfvén waves.
- Homogeneous turbulence.

Selected publications

- [1] L.-A. COUSTON, D. LECOANET, B. FAVIER AND M. LE BARS, Slowly-reversing mean flows emerge from turbulently-generated internal waves, *Phys. Rev. Lett.* **120**, 244505 (2018).
- [2] K. SANDEEP REDDY, B. FAVIER AND M. LE BARS, Turbulent kinematic dynamos in ellipsoids driven by mechanical forcing, *Geophys. Res. Lett.* **45** (2018).
- [3] T. LE REUN, B. FAVIER AND M. LE BARS, Parametric instability and wave turbulence driven by tidal excitation of internal waves, *J. Fluid Mech.* **840** (2018).
- [4] T. LE REUN, B. FAVIER, A.J. BARKER & M. LE BARS, Inertial wave turbulence driven by elliptical instability, *Phys. Rev. Lett.* **119**, 034502 (2017).
- [5] S. CABANES, J. M. AURNOU, B. FAVIER & M. LE BARS, A laboratory model for deep-seated jets on the gas giants, *Nature Physics* **13**, 387-390 (2017).
- [6] A. M. GRANNAN, B. FAVIER, M. LE BARS & J. M. AURNOU, Tidally forced turbulence in planetary interiors, *Geophys. J. Int.* **208** 3 (2016).
- [7] B. FAVIER, A.M. GRANNAN, M. LE BARS & J.M. AURNOU, Generation and maintenance of bulk turbulence by libration-driven elliptical instability, *Phys. Fluids* **27**, 066601 (2015).
- [8] B. FAVIER, L.J. SILVERS & M.R.E. PROCTOR, Inverse cascade and symmetry breaking in rapidly rotating Boussinesq convection, *Phys. Fluids* **26**, 096605 (2014).
- [9] B. FAVIER, A.J. BARKER, C. BARUTEAU & G.I. OGILVIE, Nonlinear evolution of tidally forced inertial waves in rotating fluid bodies, *Mon. Not. Astron. Soc.* **439** pp.845–860 (2014).