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Publications List

- † - I was a co-first-author on this paper
* - This paper was led by someone I mentor

Peer-reviewed Journal Articles

- 2022 *20. Powers, W.T.; **Anders, E.H.**; Brown, B.P.; and Oishi, J.S. In prep (PRFluids).
Fundamental studies of internally heated fully compressible convection
- *19. Cresswell, I.G.; **Anders, E.H.**; Brown, B.P.; Oishi, J.S.; and Vasil, G.M.
Submitted to PRFluids.
Force Balances in Strong-Field Magnetoconvection Simulations
- *18. Fuentes, J.R.; Cumming, A.; **Anders, E.H.**. Submitted to PRF. ([ArXiv](#)).
Layer formation in a stably-stratified fluid cooled from above. Towards an analog for Jupiter and other gas giants.
- †17. Fraser, A.E.; Joyce, M.; **Anders, E.H.**; Tayar, J.; Cantiello, M. Accepted for publication in ApJ. ([ArXiv](#)).
Characterizing Observed Extra Mixing Trends in Red Giants using the Reduced Density Ratio from Thermohaline Models.
- *16. Kaufman, E.; Lecoanet, D.; **Anders, E.H.**; Brown, B.P.; Vasil, G.M.; Oishi, J.S.; and Burns, K.J. [MNRAS 517, 3](#).
The Stability of Prendergast Magnetic Fields
15. Jermyn, A.S.; **Anders, E.H.**; Lecoanet, D.; and Cantiello, M. [ApJS 262, 19](#).
An Atlas of Convection in Main Sequence Stars.
14. Jermyn, A.S.; **Anders, E.H.**; Lecoanet, D.; and Cantiello, M. [ApJ 929, 182](#).
Convective Penetration in Early-Type Stars
13. **Anders, E.H.**; Jermyn, A.S.; Lecoanet, D.; Fraser, A.E.; Cresswell, I.G.; Joyce, M.; and Fuentes, J.R. [ApJL 928, L10](#).
Schwarzschild and Ledoux are equivalent on evolutionary timescales

12. Jermyn, A.S.; **Anders, E.H.**; and Cantiello, M. [ApJ 926, 221](#).
A Transparent Window into Early-Type Stellar Variability
11. **Anders, E.H.**; Jermyn, A.S.; Lecoanet, D.; and Brown, B.P., [ApJ 926, 169](#).
Stellar convective penetration: parameterized theory and dynamical simulations
- 2021 *10. O'Connor, L.; Lecoanet, D.; and **Anders, E.H.**, [Physical Review Fluids 6, 093501](#).
Marginally-Stable Thermal Equilibria of Rayleigh-Bénard Convection
9. Lecoanet, D.; Cantiello, M.; **Anders, E.H.**; Quataert, E.; Couston, L.; Bouffard, M.; Favier, B.; and Le Bars, M., [MNRAS 508, 1, 132-143](#).
Surface Manifestation of Stochastically Excited Internal Gravity Waves
8. Van Kooten, S.J.; **Anders, E.H.**; and Cranmer, S.R, [ApJ 913, 69](#)
A Refined Model of Convectively-Driven Flicker in Kepler Light Curves
7. Oishi, J.S.; Burns, K.J.; Clark, S.E.; **Anders, E.H.**; Brown, B.P.; Vasil, G.M.; and Lecoanet, D, [JOSS 6\(62\), 3079](#).
eigentools: A Python package for studying eigenvalueproblems with an emphasis on stability
- 2020 6. **Anders, E.H.**; Vasil, G.M.; Brown, B.P.; and Korre, Lydia, [Physical Review Fluids 5, 083501](#).
Convective dynamics with mixed temperature boundary conditions: why thermal relaxation matters and how to accelerate it
- 2019 5. **Anders, E.H.**; Lecoanet, D.; and Brown, B.P., [ApJ 884, 65](#).
Entropy Rain: Dilution and Compression of Thermals in Stratified Domains
4. **Anders, E.H.**; Manduca, C.M.; Brown, B.P.; Oishi, J.S.; Vasil, G.M., [ApJ 872, 2](#).
Predicting the Rossby Number in Convective Experiments
- 2018 3. **Anders, E.H.**; Brown, B.P; and Oishi, J. S., [Physical Review Fluids 3, 083502](#).
Accelerated evolution of convective simulations
- 2017 2. **Anders, E.H.** and Brown, B.P., [Physical Review Fluids 2, 083501](#).
Convective heat transport in stratified atmospheres at low and high Mach number
- 2016 1. Karki, S.; Tuyenbayev, D.; Kandhasamy, S.; Abbott, B.P.; Abbott, T.D.; **Anders, E.H.**; Berliner, J.; Betzwieser, J.; Cahillane, C.; Canete, L.; Conley, C.; Daveloza, H.P.; De Lillo, N.; Gleason, J.R.; Goetz, E.; Izumi, K.; Kissel, J.S.; Mendell, G.; Quetschke, V; Rodruck, M.; Sachdev, S.; Sadecki, T.; Schwinberg, P.B.; Sottile, A.; Wade, M.; Weinstein, A.J., West, M.; and Savage, R.L., [Review of Scientific Instruments 87, 114503](#).
The Advanced LIGO photon calibrators

Other Publications

- 2022 4. Featherstone, N. et. al. incl. **Anders, E.H.** Decadal Review Whitepaper.
The Puzzling Structure of Solar Convection: Window into the Dynamo

3. **Anders, E.H.**; Bauer, E.B.; Jermyn, A.S.; Van Kooten, S.J.; Brown, B.P.; Hester, E.W.; Wilkinson, M.; Goldberg, J.A.; Varesano, T.; Lecoanet, D. [ArXiv; April fool's paper](#).
Moosinesq Convection in the Cores of Moosive Stars
2. **Anders, E.H.**; Jermyn, A.S.; Lecoanet, D.; Fuentes, J.R.; Korre, L.; Brown, B.P.; Oishi, J.S.; [RNAAS 6, 41](#).
Convective Boundary Mixing Processes
1. Jermyn, A.S.; **Anders, E.H.**; Lecoanet, D.; Cantiello, M.; and Goldberg, J.A.; [RNAAS 6, 29](#).
Measures of Convective Efficiency