

NSF BIOGRAPHICAL SKETCH

NAME: Anders, Evan

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POSITION TITLE & INSTITUTION: CIERA Postdoctoral Fellow, Northwestern University

(a) PROFESSIONAL PREPARATION -(see PAPPG Chapter II.C.2.f.(a))

INSTITUTION	LOCATION	MAJOR / AREA OF STUDY	DEGREE (if applicable)	YEAR YYYY
Whitworth University	Spokane, WA	Physics	BS	2014
University of Colorado	Boulder, CO	Astrophysical & Planetary Sciences	MS	2016
University of Colorado	Boulder, CO	Astrophysical & Planetary Sciences	PHD	2020
Northwestern University	Evanston, IL	CIERA Postdoctoral Fellow	Postdoctoral Fellow	2020 - present

(b) APPOINTMENTS -(see PAPPG Chapter II.C.2.f.(b))

2020 - present CIERA Postdoctoral Fellow, Northwestern University, CIERA, Evanston, IL

2018 - 2020 NASA NESSF Fellow, University of Colorado, LASP, Boulder, CO

2015 - 2018 George Ellery Hale Graduate Fellow, University of Colorado, NSO & LASP, Boulder, CO

(c) PRODUCTS -(see PAPPG Chapter II.C.2.f.(c))

Products Most Closely Related to the Proposed Project

- Anders E, Manduca C, Brown B, Oishi J, Vasil G. Predicting the Rossby Number in Convective Experiments. The Astrophysical Journal. 2019 February 19; 872(2):138-. Available from: <https://iopscience.iop.org/article/10.3847/1538-4357/aaff61> DOI: 10.3847/1538-4357/aaff61
- Anders E, Jermyn A, Lecoanet D, Brown B. Stellar Convective Penetration: Parameterized Theory and Dynamical Simulations. The Astrophysical Journal. 2022 February 22; 926(2):169-. Available from: <https://iopscience.iop.org/article/10.3847/1538-4357/ac408d> DOI: 10.3847/1538-4357/ac408d
- Anders E, Jermyn A, Lecoanet D, Fraser A, Cresswell I, Joyce M, Fuentes J. Schwarzschild and Ledoux are Equivalent on Evolutionary Timescales. The Astrophysical Journal Letters. 2022 March 25; 928(1):L10-. Available from: <https://iopscience.iop.org/article/10.3847/2041-8213/ac5cb5> DOI: 10.3847/2041-8213/ac5cb5
- Anders E, Brown B. Convective heat transport in stratified atmospheres at low and high Mach number. Physical Review Fluids. 2017; 2(8):- . Available from: <https://link.aps.org/doi/10.1103/PhysRevFluids.2.083501> DOI: 10.1103/PhysRevFluids.2.083501
- Jermyn A, Anders E, Lecoanet D, Cantiello M. Convective Penetration in Early-type Stars. The Astrophysical Journal. 2022 April 27; 929(2):182-. Available from: <https://iopscience.iop.org/article/10.3847/1538-4357/ac5f08> DOI: 10.3847/1538-4357/ac5f08

Other Significant Products, Whether or Not Related to the Proposed Project

1. Anders E, Brown B, Oishi J. Accelerated evolution of convective simulations. *Physical Review Fluids*. 2018; 3(8):- . Available from: <https://link.aps.org/doi/10.1103/PhysRevFluids.3.083502> DOI: 10.1103/PhysRevFluids.3.083502
2. Anders E, Lecoanet D, Brown B. Entropy Rain: Dilution and Compression of Thermals in Stratified Domains. *The Astrophysical Journal*. 2019 October 11; 884(1):65-. Available from: <https://iopscience.iop.org/article/10.3847/1538-4357/ab3644> DOI: 10.3847/1538-4357/ab3644
3. Jermyn A, Anders E, Lecoanet D, Cantiello M. An Atlas of Convection in Main-sequence Stars. *The Astrophysical Journal Supplement Series*. 2022 August 24; 262(1):19-. Available from: <https://iopscience.iop.org/article/10.3847/1538-4365/ac7cee> DOI: 10.3847/1538-4365/ac7cee
4. Lecoanet D, Cantiello M, Anders E, Quataert E, Couston L, Bouffard M, Favier B, Le Bars M. Surface manifestation of stochastically excited internal gravity waves. *Monthly Notices of the Royal Astronomical Society*. 2021 November; 508(1):132-143. Available from: <https://academic.oup.com/mnras/article/508/1/132/6366938> DOI: 10.1093/mnras/stab2524
5. Oishi J, Burns K, Clark S, Anders E, Brown B, Vasil G, Lecoanet D. eigentools: A Python package for studying differential eigenvalue problems with an emphasis on robustness. *Journal of Open Source Software*. 2021 June 23; 6(62):3079-. Available from: <https://joss.theoj.org/papers/10.21105/joss.03079> DOI: 10.21105/joss.03079

(d) SYNERGISTIC ACTIVITIES -(see PAPPG Chapter II.C.2.f.(d))

1. I participated in UC Santa Cruz's ISEE Professional Development Program twice, where I created and taught pedagogically-sound outreach modules to teach entering college freshmen about exoplanet transits (year 1) and buoyancy (year 2).
2. I served on many committees at CU Boulder, including multiple years on the graduate admissions committee, where I led the development and use of rubrics in the graduate admissions process to ensure more equitable evaluation of applicants.
3. I served as an administrator of the CU-STARS program for three years, with duties including coordinating outreach trips to high schools, mentoring undergraduates, and designing hands-on activities in exoplanetary science, black holes, and atmospheric dynamics.
4. I currently co-mentor 5 graduate students (3 at Northwestern, 2 virtually at Univ. Colorado) and meet with them weekly to help them with science, professional development, grant writing, etc.
5. I am a core member of CIERA's Climate Action Team (CAT), which is working with external contractors to carry out a departmental climate survey as the first step towards making our research center a more just, equitable, diverse, and inclusive space.