

Drummond B. Fielding

Curriculum Vitae

Flatiron Research Fellow

Center for Computational Astrophysics, Flatiron Institute,
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Education

PhD 2018, MA 2014, Astrophysics, University of California, Berkeley. Advisor: *Eliot Quataert*

BS, BA 2012, Physics, Mathematics, Johns Hopkins University.

Professional Appointments

Flatiron Research Fellow (5 year appointment), CCA	2018-present
Visiting Scholar, Indian Institute of Science	2016
Graduate Researcher, U.C., Berkeley	2012-2018

Honors and awards

Flatiron Fellowship	2018-2023
Outstanding Graduate Student Instructor Award	2014
NSF Graduate Research Fellowship	2014-2017
Berkeley Graduate Fellowship	2012-2014
Donald E. Kerr Award for Outstanding Physics Undergraduate	2012
The Phi Beta Kappa Society	2012

Research interests

galaxy formation	galactic winds & feedback	plasma physics
MHD turbulence	circumgalactic medium	machine learning
fluid dynamics	star formation	high performance computing

Grants

DUVET: Mapping Outflows and the Inner CGM in Starbursting Disks, KCWI, Co-I, 2020
Visiting scholar grant to work Indian Institute of Science with Prof. Prateek Sharma, APS-IUSSTF, 2016
Towards an Understanding of the Origin of OVI in the Circumgalactic Medium, HST ARG, Co-I, 2017
The Physics of Supernova Feedback: Global 3D Simulations of Galactic Disks, NSF XSEDE, Co-I, 2016-2018
Conduction, Convection, and Thermal Instability in Hot Halos, NSF XSEDE, Co-I, 2016-2017

Selected recent presentations

Astrophysics Seminar, UIUC (11/2022)
Joint Astrophysics Colloquium, Pitt-CMU (10/2022)
Invited talk, *What Matter(s) Around Galaxies*, conference (9/2022)
Invited talk, *Ringberg Computational Galaxy Formation 2022*, conference (4/2022)

Invited talk, *Wolfe Symposium*, conference (3/2022)
 Theoretical Astrophysics Including Relativity & Cosmology seminar, Caltech (12/2021)
 Astronomy Department seminar, The Racah Institute of Physics, Hebrew University of Jerusalem (12/2021)
 Invited Talk, *Baltimore Wind Workshop*, Johns Hopkins University (8/2021)
 Astrophysics Colloquium, UCSD-SDSU (4/2021)
[Keynote speaker](#), KITP workshop *Fundamentals of Gaseous Halos* (1/2021)
 Invited talk, KITP conference *On the Origin, Nature, and Mixing of Multiphase Gas in Astrophysics* (10/2020)
 Gaggle Seminar, Carnegie Institution for Science (8/2020)
 Invited talk, CLEARNESS conference IAP (6/2020)
 CGI Colloquium, U.C. Santa Cruz (4/2020)
 Contributed Talk, Universality of Turbulence Conference, Flatiron Institute, NY (12/2019)
 SFIR Seminar, Princeton University (11/2019)
 Astro Seminar, NYU CCPP, New York NY (10/2019)
 Invited Talk, CGM conference, Berlin Germany (10/2019)
 Lunch Talk, CCA, New York NY (10/2019)
 Contributed Talk, Feedback conference, Spetses Greece (6/2019)
 Invited seminar, Turbulence workshop, Aspen Center for Physics (6/2019)
 Contributed Talk, CGM/IGM conference, Spineto Italy (6/2019)
 Invited Talk, *athena++* conference, Las Vegas NV (3/2019)
 Invited Talk, CGM conference, Northwestern, Chicago IL (8/2018)
 Invited Talk, CGM/DLA conference, Big Sur CA (3/2018)
 TAPIR Seminar, Caltech, Pasadena CA (11/2017)
 Astronomy Colloquium, Raman Research Institute (12/2016)
 Astronomy Department Colloquium, Indian Institute of Science (10/2016)

Student advising

[Iryna Butsky](#) – Graduate Student – University of Washington + CCA predoctoral fellow
[Viraj Pandya](#) – Graduate Student – UC Santa Cruz + CCA predoctoral fellow
[Matthew Abruzzo](#) – Graduate Student – Columbia
[Anthony Chow](#) – Graduate Student – Columbia
[Zirui Chen](#) – Undergraduate Student – Columbia
[Brent Tan](#) – Graduate Student – UC Santa Barbara + CCA predoctoral fellow
[Minami Roy](#) – Graduate Student – Raman Research Institute + CCA predoctoral fellow
[Mitali Damle](#) – Graduate Student – University of Potsdam + virtual CCA predoctoral fellow

Professional services & teaching

Simons-National Society of Black Physicists Scholars Program summer mentor
 Founder and organizer of the *New York Area Fluid Dynamics Meeting*, a cross-disciplinary monthly meeting of local fluid dynamicists, 2020
[Flatiron Pre-Doctoral Program](#) graduate student mentor, 2019–
 Graduate Student Instructor: Astronomy C12 ‘The Planets’ (UC Berkeley)
 Graduate Student Instructor: Astronomy 7A (UC Berkeley)
 Referee: MNRAS, ApJ, ApJL
 NSF proposal evaluation panelist, 2020

Public outreach

Founder and leader of *The Astro Club*. Monthly meetings 2020–present. [Democracy Prep Charter Middle School](#), Harlem, NY.

Astronomy career day, [Democracy Prep Charter Middle School](#), Harlem, NY 2019

Taught a month-long series of astronomy classes to 2nd and 3rd grade students. 2017. North Oakland Community Charter School, Oakland, CA

Undergrad mentor UC Berkeley Astronomy, 2016-2017

UC Berkeley Astronomy Department Public Liaison, 2015

East Bay Astronomical Society Public Lecture, 2014, Chabot Space and Science Center

[The Berkeley Compass Project](#) Summer Evening Instructor, 2013