

Drummond B. Fielding

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EDUCATION

<i>Ph.D.</i> , Astrophysics University of California, Berkeley Advisor: Eliot Quataert Thesis: The Multi-Phase CGM and Galactic Winds	2018 (expected)
<i>Master of Arts</i> , Astrophysics University of California, Berkeley	2014
<i>Bachelors of Arts</i> , Physics & <i>Bachelors of Arts</i> , Mathematics Johns Hopkins University	2012

RESEARCH INTERESTS

- Astrophysical fluid dynamics using computational techniques.
- The circumgalactic medium; modeling its evolution and phase structure to establish its important role in galaxy formation and to improve interpretation of observations.
- Galactic winds; identifying their dominant driving mechanisms, and understanding their impact on the surrounding medium.

AWARDS & HONORS

National Science Foundation Graduate Research Fellow	2014 - 2017 (awarded 2012)
Berkeley Fellow for Graduate Study	2012 - 2014
Outstanding Graduate Student Instructor Award	2013 - 2014
Donald E. Kerr Award for Outstanding Physics Undergraduate (JHU)	2012

GRANTS

APS-IUSSTF Physics Ph.D. Student & Postdoc Visitation Program U.S.-India Travel Grant to Indian Institute of Science with Prof. Prateek Sharma	2016
Hubble Space Telescope cycle 25 Archival Research Grant <i>Towards an Understanding of the Origin of OVI in the Circumgalactic Medium</i> PI: Michael McCourt, Co-Is: Drummond Fielding, Peng Oh, Crystal Martin	2017
NSF Extreme Science and Engineering Discovery Environment (XSEDE) TG-AST160020 — 775,784 SUs on COMET	2016-2018 2016
TG-AST160020 — 1,732,096 SUs on COMET <i>The Physics of Supernova Feedback: Global 3D Simulations of Galactic Disks</i> PI: Davide Martizzi, Co-Is: Drummond Fielding, Eliot Quataert	2017
NSF Extreme Science and Engineering Discovery Environment (XSEDE) TG-AST140083 — 1,159,956 SUs on Stampede <i>Conduction, Convection, and Thermal Instability in Hot Halos</i> PI: Michael McCourt, Co-I: Drummond Fielding	2016-2017

PROFESSIONAL SERVICE & TEACHING

Referee: ApJL, MNRAS	since 2016
Graduate Student Instructor: Astronomy C12 'The Planets', Astronomy 7A	2012, 2013

SCIENCE OUTREACH

Taught a series of astronomy classes to 2nd and 3rd grade students North Oakland Community Charter School	2017
Undergrad mentor UC Berkeley Astronomy	2016-2017
UC Berkeley Astronomy Department Public Liason	2015
<i>East Bay Astronomical Society</i> Public Lecture Chabot Space and Science Center	2014
<i>The Berkeley Compass Project</i> Summer Evening Instructor	2013

PUBLICATIONS

FIRST AUTHOR

Drummond Fielding, Eliot Quataert, Davide Martizzi, and Claude-André Faucher-Giguère
How Supernovae Launch Galactic Winds, MNRAS, letters, 470, 39 (2017)

Drummond Fielding, Eliot Quataert, Michael McCourt, and Todd Thompson
The Impact of Star Formation Feedback on the Circumgalactic Medium, MNRAS, 466, 3810 (2017)

Drummond Fielding, Christopher McKee, Aristotle Socrates, A. Cunningham, and Richard Klein
The Turbulent Origin of Spin-Orbit Misalignment in Planetary Systems, MNRAS, 450, 3306 (2015)

CONTRIBUTING AUTHOR

Davide Martizzi, **Drummond Fielding**, Claude-André Faucher-Giguère, and Eliot Quataert
Supernova Feedback in a Vertically Stratified Medium: Interstellar Turbulence and Galactic Wind Launching, MNRAS, 459, 2311 (2016)

Stella S. R. Offner, Michael M. Dunham, Katherine I. Lee, Hector G. Arce, and **Drummond Fielding**
The Turbulent Origin of Outflow and Spin Misalignment in Multiple Star Systems ApJ, 827L, 110 (2016)

J. E. Schlieder, S. Lépine, E. Rice, M. Simon, **Drummond Fielding**, and R. Tomasino
The Na 8200 Å Doublet as an Age Indicator in Low-mass Stars, AJ, 143, 114 (2011)

IN PREPARATION, TO BE SUBMITTED SHORTLY

Drummond Fielding, Michael McCourt, Eliot Quataert, and Peng Oh
The Single Phase Circumgalactic Medium Component as a Clear Window into Galactic Halo Structure

Eliot Quataert and **Drummond Fielding**
Clustered Supernovae and Galactic Winds

SELECT PRESENTATIONS

TAPIR Seminar, Caltech (11/2017)

Hernquist group meeting, Harvard CfA (10/2017)

SFIR Seminar, Princeton University (10/2017)

FLASH Seminar, U.C. Santa Cruz (10/2017)

Astronomy Seminar, University of Washington (10/2017)

Contributed Talk, U.C. Santa Cruz Galaxy Workshop (8/2017)

IMPS seminar, U.C. Santa Cruz (5/2017)

Astronomy Seminar, Raman Research Institute (12/2016)

Astronomy Department Colloquium, Indian Institute of Science (10/2016)

Lunch Talk U.C. Berkeley Astronomy Department (10/2016)

Astronomy Seminar U.C. Santa Barbara (9/2016)

Contributed Talk, Crossing the Rubicon (9/2016)

Contributed Talk, U.C. Santa Cruz Galaxy Workshop (8/2016)

Galaxy Group Seminar, University of Michigan (3/2016)

Lunch Talk U.C. Berkeley Astronomy Department (12/2013)