


# R. MICHAEL JENNINGS

[michaeljennings11.github.io](https://michaeljennings11.github.io)

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## EDUCATION

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**Johns Hopkins University** - Baltimore, MD

Aug 2021 -

PhD Astronomy and Astrophysics (Candidate)

Advisors: Alaina Henry, Tim Heckman

**University of California, Berkeley** - Berkeley, CA

Aug 2018 - May 2021

B.A. Physics, B.A. Astrophysics

Advisors: Yuan Li, Eugene Chiang, Eliot Quataert

GPA: 3.725 *Honors*

**Diablo Valley College** - Pleasant Hill, CA

Jan 2016 - Jul 2018

A.S. Physics, A.S. Mathematics

Cert. of Achievement C++ Programming, Cert. of Achievement Japanese Language

GPA: 3.835 *Honors*

## PUBLICATIONS

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[Astrophysics Data System](#)  $\diamond$  [arXiv](#)

citations: 20 first authored

[3] **Jennings, R. M.**; Henry, A.; *Observational Effects on Leaky Galaxy Spectra: Using Cosmological Galaxy Simulations to Constrain Lyman Continuum Escape Fraction Measurements*, in-prep (2022)

[2] **Jennings, R. M.**; Chiang, E.; *Primordial Obliquities of Brown Dwarfs and Super-Jupiters from Fragmenting Gravito-Turbulent Discs*, MNRAS (2021), [arXiv:2105.12160](#)

[1] **Jennings, R. M.**; Li, Y.; *Thermal Instability and Multiphase Gas in the Simulated Interstellar Medium with Conduction, Viscosity and Magnetic Fields*, MNRAS (2021), [arXiv:2012.05252](#)

## TALKS, POSTERS AND OTHER WRITINGS

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[7] *Simulating Super-Jupiter Obliquities*, UC Berkeley, February 2021. (talk)

[6] *Thermal Instability and Mechanisms for Small Cloud Production*, Center for Computational Astrophysics, February 2021. (talk)

[5] *Thermal Instability and Multiphase Gas in the ISM*, University of North Texas, January 2021. (talk)

[4] Lee, M.; **Jennings, R. M.**; *Large Scale Structure Evolution With Various Cosmologies: Exploring Particle Mesh Cosmological Simulations*, ASTRON C161 Final Project, Berkeley, CA, May 2020. (class project)

[3] Sunseri, J.; Tausik, N.; Zezulka, S.; Wellnitz, G.; Lera, I.; Deak, B.; Chan, T. Y.; **Jennings, R. M.**; *Computational Analysis of Mixing Layers in the Interstellar Medium*, ULab poster session, Berkeley, CA, May 2020. (poster)

[2] **Jennings, R. M.**; Li, Y.; Quataert, E.; *Thermal Instability In The Interstellar Medium And The Implementation of Anisotropic Conduction in Athena++*, Astronomy Poster Summer Intern Symposium, Berkeley, CA, August 2019. (poster)

[1] Mo, S.; Raizada, S.; Ott, J.; Dicks, P.; Kofford, S.; **Jennings, R. M.**; *Interplanetary Radiation Harnessing Voltaic System*, ULab poster session, Berkeley, CA, May 2019. (poster)

## SKILLS

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<b>Computer Languages</b>	C/C++, Python, Linux/Unix, L <sup>A</sup> T <sub>E</sub> X, bash, git, ADQL, HTML, CSS
<b>Parallel Computing</b>	MPI, OpenMP
<b>Software</b>	Athena/Athena++, Enzo, yt
<b>Supercomputing</b>	NASA Pleiades, Berkeley Research Computing (BRC) Savio, NERSC Cori

## AWARDS AND SCHOLARSHIPS

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<b>Dorothea Klumpke Roberts Prize (UCB)</b>	2021
For outstanding scholarly achievement by either an upper-level undergraduate student, or an outstanding graduate student early in his/her research career.	
<b>James Monroe McDonald Scholarship</b>	2020-2021
<b>Ensign-Hornbeck Scholarship</b>	2020-2021
<b>DLMC Foundation Scholarship</b>	2020-2021
<b>George A. Douglass Scholarship</b>	2019-2021
<b>Albert L. Ehrman Memorial Scholarship</b>	2019-2020
<b>Odell Wilson Scholarship</b>	2019-2020

## TEACHING AND WORK EXPERIENCE

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<b>Teaching Assistant, General Physics: Physical Science Majors II</b> Johns Hopkins University	<i>Sept 2021 - Dec 2021</i>
<b>Teaching Assistant, General Physics Laboratory I</b> Johns Hopkins University	<i>Sept 2021 - Dec 2021</i>
<b>Mentor, ULab Theoretical Astrophysics Group</b> University of California, Berkeley	<i>Sept 2019 - May 2020</i>
<b>Mentor, ULab Particle Physics Group</b> University of California, Berkeley	<i>Sept 2018 - May 2019</i>
<b>Technician, Physics Laboratory</b> Diablo Valley College	<i>Feb 2017 - Jun 2018</i>
<b>Astronomy Tutor, Physical Science Department</b> Diablo Valley College	<i>Aug 2016 - May 2018</i>

## SERVICE AND OUTREACH

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<b>Observatory Deck Docent and Telescope Operator</b> Chabot Space and Science Center, Oakland	<i>Aug 2017 - Dec 2017</i>
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## REFERENCES

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Yuan Li  
Professor - Department of Physics, University of North Texas  
Email: yuan.li@unt.edu

Eugene Chiang  
Professor - Department of Astronomy & Department of Earth and Planetary Science, UC Berkeley  
Email: echiang@astro.berkeley.edu

Mariska Kriek  
Professor - Department of Astronomy, UC Berkeley  
Email: mkriek@berkeley.edu