

R. MICHAEL JENNINGS

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michaeljennings11.github.io

EDUCATION

University of California, Berkeley

August 2018 - Present

B.A. Physics (In Progress)

B.A. Astrophysics (In Progress)

Advisors: Yuan Li, Eugene Chiang, Eliot Quataert

Berkeley, CA, GPA: 3.622

Diablo Valley College

January 2016 - July 2018

A.S. Physics

A.S. Mathematics

Certificate of Achievement in C++ Programming

Certificate of Achievement in Japanese Language

Pleasant Hill, CA, GPA: 3.835 *Honors*

RESEARCH EXPERIENCE

Determining the Obliquity of Fragments Formed Within Gravitationally Unstable Self-Gravitating Disks (*Honors Thesis*)

Advisor: Eugene Chiang

August 2020 - Present

Simulating Mixing Layers in the ISM through the Kelvin-Helmholtz Instability

As ULab Mentor

September 2019 - May 2020

Simulating Thermal Instability and Multiphase Gas in the Interstellar Medium

Advisors: Yuan Li, Eliot Quataert

January 2019 - December 2020

PUBLICATIONS

[2] Jennings, R. M.; Chiang, E.; *Obliquity of Fragments Formed Within Gravitationally Unstable Self-Gravitating Disks*, in prep

[1] Jennings, R. M.; Li, Y.; *Thermal Instability and Multiphase Gas in the Simulated Interstellar Medium with Conduction, Viscosity and Magnetic Fields*, submitted to MNRAS (2020), [arXiv:2012.05252](https://arxiv.org/abs/2012.05252)

SKILLS

Computer Languages

C/C++, Python, Linux/Unix, L^AT_EX, bash, git, ADQL, HTML, CSS

Parallel Computing

MPI, OpenMP

Software

Athena/Athena++, Enzo, yt

Supercomputing

NASA Pleiades, UCB Savio

AWARDS AND SCHOLARSHIPS

James Monroe McDonald Scholarship

2020-2021

Ensign-Hornbeck Scholarship

2020-2021

DLMC Foundation Scholarship

2020-2021

George A. Douglass Scholarship

2019-2021

Albert L. Ehrman Memorial Scholarship

2019-2020

Odell Wilson Scholarship

2019-2020

POSTERS AND OTHER WRITINGS

[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)

TEACHING AND WORK EXPERIENCE

Mentor, ULab Theoretical Astrophysics Group University of California, Berkeley	<i>September 2019 - May 2020</i>
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Mentor, ULab Particle Physics Group University of California, Berkeley	<i>September 2018 - May 2019</i>
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Technician, Physics Laboratory Diablo Valley College	<i>February 2017 - June 2018</i>
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Astronomy Tutor, Physical Science Department Diablo Valley College	<i>August 2016 - May 2018</i>
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SERVICE AND OUTREACH

Observatory Deck Docent and Telescope Operator Chabot Space and Science Center, Oakland	<i>August 2017 - December 2017</i>
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REFERENCES

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
Email: echiang@astro.berkeley.edu