Curriculum Vitae

Jasmine Therese Brewer

CONTACT INFORMATION

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2900 College Ave. #10
Boulder, CO 80303

EDUCATION

University of Colorado at Boulder, Boulder, CO ..... 2011 - Present
Anticipated Graduation May 2015
B.Sc. Engineering Physics, Minor: Mathematics
GPA 3.95/4.0

HONORS AND AWARDS

Barry M. Goldwater Scholar 2014
Astronaut Scholarship Foundation (ASF) finalist 2014
Presidential Scholar, University of Colorado at Boulder ..... 2011 - Present
J.H. Cole Merit Scholar, College of Engineering and Applied Science ..... 2011 - Present
Engineering Honors Program (EHP) member ..... 2011 - Present

RESEARCH

Nuclear Theory and Computational Hydrodynamics ..... 2013 - Present
Asst. Professor Paul Romatschke, University of Colorado at Boulder
Project Title - Hydrodynamics of Cold Quantum Gases at Unitarity

Theoretical Magnetohydrodynamics ..... Summer 2014
Professor Dana Longcope, Montana State University Bozeman
NSF Research Experiences for Undergraduates Program
Project Title - Simulating Shocks in Solar Flares

Liquid Crystal Materials Research Center ..... 2012 - 2013
Asst. Professor Ivan Smalyukh, University of Colorado at Boulder
Project Title - Particle Interactions in Continuous Fields

Optical Remote Sensing Laboratory ..... Summer 2012, 2013
Professor Joseph Shaw, Montana State University Bozeman
NSF Research Experiences for Undergraduates Program
Project Title 2013 - Quantitative Image Analysis Algorithms for Airborne Imaging of CO_2 Sequestration Sites
Project Title 2012 - Design of an Optoelectronic System to Detect the Aurora Borealis

SERVICE AND OUTREACH

CU Prime (CU') ..... 2013 - Present
Instructor and co-designer of course *Fundamentals of Scientific Inquiry* (PHYS 1400)
Active member, CU Prime Research Committee
Undergraduate Mentor

Colorado Space Grant Consortium ..... 2011 - 2012
Design team, 2012 RockOn! Workshop prototype payload
Participant, K-12 Engineering Outreach

PUBLICATIONS

1. **Jasmine Brewer**, P. Romatschke, and M. Mendoza. "Hydrodynamics Simulations of cold atomic gases at unitarity." *In preparation*

2. M.B. Pandey, T. Porenta, **J. Brewer**, A. Burkhart, S. Čopar, S. Žumer, and Ivan. I. Smalyukh. "Self-assembly of skyrmion-dressed chiral nematic colloids with tangential anchoring." *Phys. Rev. E 89, 060502 (2014)*

3. Joseph. A. Shaw, Paul W. Nugent, Sean Nicolaysen, and **Jasmine Brewer**. "Balloon-borne multispectral imaging of vegetation to detect CO_2 gas leaking from underground." *In preparation*

PRESENTATIONS

1. "Modeling a super-hot, above-the-loop-top thermal HXR source as the slow-shock-heated reconnection outflow." **J. Brewer**, D. Longcope, J. Qiu, A. Caspi. *2014 LWS / Hinode / IRIS Meeting.* Portland, OR. Poster.

2. "Field-Controlled Interactions and Self-Assembly of Colloidal Particles in Confined Chiral Nematic Liquid Crystal." **Jasmine Brewer**, Manoj Pandey, Ivan Smalyukh. *2013 Materials Science and Engineering Seminar.* Boulder, CO. Poster.

3. "Sensitive Optoelectronic Detection of the Aurora Borealis." **Jasmine Brewer**, Nathan Pust, Joseph A. Shaw. *2012 Optical Technology Center Conference.* Bozeman, MT. Poster.