

Kathleen Hoogeboom-Pot

Graduate Research Assistant
JILA, University of Colorado at Boulder

2995 Glenwood Dr. Apt. 312 | Boulder, CO 80301
(720) 310-5768 | k.hoogeboom@gmail.com

Education	Doctor of Philosophy in Physics, University of Colorado <i>Graduation expected in May 2015</i>	<i>2009-present</i>
	Master of Science in Physics, University of Colorado, 3.85 GPA	<i>2012</i>
	Bachelor of Science with Honors in Physics, Calvin College, 4.0 GPA	<i>2008</i>
Research Experience	Ph.D. Research Assistant, JILA/Physics, University of Colorado	<i>2009-present</i>
	<ul style="list-style-type: none">Using tabletop ultrafast coherent x-rays to study how heat flow and acoustic dynamics are affected by nanoscale dimensions, with Drs. Margaret Murnane and Henry KapteynDeveloped extreme-ultraviolet metrology tool for ultrathin filmsDiscovered while nanoscale heat sources dissipate heat less efficiently, close spacing may counteract this effectCollaborated with groups from 3 leading semiconductor and data-storage companies, 4 universities and 2 national laboratories	
	Undergraduate Research Assistant, Calvin College	
	<ul style="list-style-type: none">Built 45-node supercomputing cluster with Dr. Joel Adams	<i>2008</i>
	<ul style="list-style-type: none">Ultracold photoassociated krypton with Dr. Matthew WalhoutAsteroid dynamics and telescope upkeep with Dr. Larry Molnar	<i>2007-2008</i> <i>2005-2007</i>
Awards & Fellowships	'Judges Choice' awardee in NSF National IGERT Video and Poster Contest	<i>2013</i>
	U.S. Delegate to the Lindau Meeting of Nobel Laureates	<i>2012</i>
	Semiconductor Research Corporation GRC grant	<i>2012</i>
	Best student poster at Colorado Photonics Industry Assoc. Meeting	<i>2011</i>
	NSF Graduate Research Fellowship	<i>2010</i>
	Computational Optical Sensing and Imaging fellowship, an interdisciplinary NSF-IGERT program	<i>2009</i>
	National Merit Scholarship	<i>2004</i>

Outreach & Teaching	Mentor for REU student projects, University of Colorado	2011, 2013
	Teaching Assistant (lab/recitation), University of Colorado	2009-2010
	• Calculus- and algebra-based introductory physics	
	Graduate Teacher Program, University of Colorado	2009-2011
	Teaching Assistant (lab/grading), Calvin College	2005-2007
	• Introductory through upper level physics, astronomy, math	
	Editor and Writer for Calvin College <i>Chimes</i>	2005-2008
• Created and edited Science & Technology section	2006-2007	
• Editor-in-Chief	2007-2008	
Observatory Assistant, Calvin College	2004-2005	
• Led tours and operated local and remote telescopes		

Service	Graduate Admissions Committee, University of Colorado Physics Dept.	2013
	Board member of Rainbow Foundation charitable organization	2010-present
	World Renew Disaster Response Services reconstruction volunteer	2008-2009

Technical Proficiencies

Software and programming: Matlab, Mathematica, Igor, iMovie, Adobe Creative Suite, Gimp; C++; Windows, Mac, Linux

Techniques: Optics, standard and ultrafast laser systems; high- and ultrahigh-vacuum technology; pump-probe setup; metal machining

Select Publications

- **K.Hoogeboom-Pot** and 9 others. “Coherent EUV-based acoustic nano-metrology for the elastic characterization of ultrathin films.” In preparation.
- **K.Hoogeboom-Pot** and 5 others. “How close-packing of nanoscale interfaces may overcome inefficiencies of ballistic heat transport.” In preparation.
- D.Nardi, **K.Hoogeboom-Pot**, J.N.Hernandez-Charpak, M.Tripp, S.King, E.Anderson, M.Murnane, H.Kapteyn. “Probing limits of acoustic nanometrology using coherent extreme ultraviolet light,” *Proceedings of SPIE Metrology, Inspection, and Process Control for Microlithography XXVII, 86810N (2013)*.
- Q.Li, **K.Hoogeboom-Pot**, D.Nardi, M.Murnane, H.Kapteyn, M.Siemens, E.Anderson, O.Hellwig, E.Dobisz, B.Gurney, R.Yang, K.Nelson. “Generation and control of ultrashort-wavelength 2D surface acoustic waves at nanoscale interfaces,” *PRB 85, 195431 (2012)*.
- Q.Li, **K.Hoogeboom-Pot**, D.Nardi, C.Deeb, S.King, M.Tripp, E.Anderson, M.Murnane, H.Kapteyn. “Characterization of ultrathin films by laser-induced sub-picosecond photoacoustics with coherent extreme ultraviolet detection,” *SPIE Proceedings for Metrology, Inspection, and Process Control for Microlithography XXVI, 83241P (2012)*.