Bradley W. Hindman
Associate Research Professor
JILA, Astrophysical and Planetary Sciences, and Applied Mathematics
University of Colorado Boulder
Boulder CO 80309-0440

Curriculum Vitae

PROFESSIONAL APPOINTMENTS

8/17–12/26	**Associate Research Professor**, Department of Astrophysical and Planetary Sciences, University of Colorado Boulder
7/19–present	**Senior Research Associate**, Department of Applied Mathematics, University of Colorado Boulder
7/01–present	**Senior Research Associate**, JILA, University of Colorado Boulder
1/08–12/12	**Assistant Research Professor**, Department of Astrophysical and Planetary Sciences, University of Colorado Boulder
7/04–12/07	**Lecturer**, Department of Astrophysical and Planetary Sciences, University of Colorado Boulder
12/97–7/01	**Research Associate**, JILA, University of Colorado Boulder
12/95–12/97	**Advanced Studies Program Postdoctoral Fellow**, High Altitude Observatory, National Center for Atmospheric Research

EDUCATION

Ph.D. Astrophysical, Planetary and Atmospheric Sciences (1995)
University of Colorado, Boulder CO
Advisor: Ellen G. Zweibel
Thesis: "The Seismology of Active Regions and the Solar Atmosphere"

B.A. summa cum laude in Physics (1990)
University of Puget Sound, Tacoma WA

RESEARCH EXPERIENCE

2019–present	**Senior Research Associate**, Department of Applied Mathematics, University of Colorado Boulder Research Topics: Physics of rotating stars and planets
2001–present	**Senior Research Associate**, JILA, University of Colorado Boulder Research Topics: Physics of stellar convection zones and MHD waves in stellar coronae
1997–2001	**Research Associate**, JILA, University of Colorado Boulder Research Topic: Helioseismology of the Sun's upper convection zone
1995–1997	**Advanced Studies Program Postdoctoral Fellow**, High Altitude Observatory, National Center for Atmospheric Research Research Topic: Sunspot and active-region seismology

Office Phone: (303) 492-8962 Mobile Phone: (303) 818-7257 E-mail: hindman@lcd.colorado.edu

1/91–12/95 **Research Assistant** with Professor Ellen Zweibel, Department of Astrophysical, Planetary and Atmospheric Sciences, University of Colorado Boulder
Research Topic: Solar magnetohydrodynamics

7/90–12/90 **Graduate Research Assistant** with Dr. Robert Winglee, Department of Astrophysical, Planetary and Atmospheric Sciences, University of Colorado Boulder
Research Topic: Magnetotail instabilities

7/90–12/90 **Graduate Research Assistant** with Professor John McKim Malville, Department of Astrophysical, Planetary and Atmospheric Sciences, University of Colorado Boulder
Research Topic: The solar cycle

6/89–9/89 **Undergraduate Research Assistant** with Professor Alan Thorndike, Department of Physics, University of Puget Sound
Research Topic: River plume mixing in Commencement Bay

TEACHING EXPERIENCE

Primary Instructor:

Department of Astrophysical and Planetary Sciences, University of Colorado Boulder

2024 ASTR 5400: Introduction to Fluid Dynamics

2020 ASTR 5540: Mathematical Methods

2019 ASTR 5400: Introduction to Fluid Dynamics

2016 ASTR 1200: Stars and Galaxies, introductory astronomy for non-majors

2014 ASTR 5400: Introduction to Fluid Dynamics

2012 ASTR 5410: Fluid Instabilities, Waves, and Turbulence

2011 ASTR 5410: Fluid Instabilities, Waves, and Turbulence

Department of Applied Mathematics, University of Colorado Boulder

2023 APPM 2360: Introduction to Differential Equations with Linear Algebra

2020 APPM 2360: Introduction to Differential Equations with Linear Algebra

Co-Instructor:

Department of Astrophysical and Planetary Sciences, University of Colorado Boulder

2009 ASTR 5410: Fluid Instabilities, Waves, and Turbulence, with Juri Toomre

2018 ASTR 7500: Helio- and Asteroseismology, with Mark Rast

Guest Instructor:

Department of Astrophysical and Planetary Sciences, University of Colorado Boulder

2025 ASTR 5400: Intro. to Fluid Dynamics, two lectures, course organized by Steven Cranmer

2016 ASTR 5540: Mathematical Methods, two lectures, course organized by Juri Toomre

2016 ASTR 5400: Intro. to Fluid Dynamics, four lectures, course organized by Juri Toomre

2013 ASTR 7500: Solar and Stellar Magnetism, six lectures, course organized by Juri Toomre

2012 ASTR 5540: Mathematical Methods, eight lectures, course organized by Juri Toomre

2009 ASTR 5540: Mathematical Methods, eight lectures, course organized by Juri Toomre

MENTORING AND SUPERVISION

2024–present **Mentor to an NSF Fellow**, Adrian Fraser, Department of Applied Mathematics, University of Colorado Boulder

2023–present **Ph.D. Thesis Advisor**, Whitney Powers (Graduate Researcher), Department of Astrophysical and Planetary Sciences, University of Colorado Boulder

2022–2024 **Supervisor**, Jose Fuentes (Postdoctoral Researcher), APPM, University of Colorado Boulder

2021–present **Ph.D. Thesis Advisor**, Catherine Blume (Graduate Researcher), Department of Astrophysical and Planetary Sciences, University of Colorado Boulder

2021–2023 **Supervisor**, Lydia Korre (Research Associate), APPM, University of Colorado Boulder

2021–2022 **Supervisor**, Maria Camisassa (Postdoctoral Researcher), APPM, University of Colorado Boulder

2011–2015 **Ph.D. Thesis Advisor**, Benjamin Greer, Department of Astrophysical and Planetary Sciences, University of Colorado Boulder, Ph.D. received Dec 2015

2010–2011 **Supervisor**, Swati Routh (Postdoctoral Researcher), JILA, University of Colorado Boulder

2005–2011 **Ph.D. Thesis Co-Advisor**, Nicholas Featherstone, Department of Astrophysical and Planetary Sciences, University of Colorado Boulder, Ph.D. received Jan 2011

2004 **Supervisor**, Zachary Ziegler (Undergraduate Student), Undergraduate Research Opportunities Program (UROP), University of Colorado Boulder

2003 **Supervisor**, Zachary Ziegler (Undergraduate Student), Undergraduate Student, University of Colorado Boulder

GRANT HISTORY

Principal Investigator:

2024–2026 "The Seismic Potential of the Sun's Inertial Modes," NASA solicitation 80NSSC24K0271, $824,943; 1/01/24–12/31/26, Co-Investigator: Nicholas Featherstone

2023–2026 "Exploring Dynamo Processes in the Tachocline and Radiative Interior," NASA grant 80NSSC23K1624, $150,000, 9/01/23–8/31/26; Future Investigator: Catherine Blume

2023–2025 "Fundamental Studies of Rotating Convection at the Solar Poles: Can We See Giant Cells under the Photospheric Convective Flows?," NASA grant 80NSSC22K1850, $150,000, 01/01/23–12/31/25; Future Investigator: Whitney Powers

2021–2023 "Processes Shaping the Solar Meridional Circulation," NASA grant 80NSSC20K0193, $885,390, 3/9/21–12/31/23; Co-Investigators: Nicholas Featherstone, Benjamin Brown

2020–2022 "The Solar Dynamo Revealed," NASA grant 80NSSC17K0008, $1,389,068, 11/13/20–6/22/22; Co-Investigators: Nicholas Featherstone, Keith Julien, Geoff Vasil, Mark Miesch

2019–2022 "Exploiting torque balance applied to the torsional oscillations to helioseismically detect and assess submerged magnetic field," NASA grant 80NSSC19K0267, $524,936, 3/01/19−2/28/22; Co-Investigator: Juri Toomre

2018–2022 "Seismology of the Corona's Magnetic Field," NASA grant 80NSSC18K1125, $600,000, 7/01/18–6/30/22; Co-Investigator: Rekha Jain

2014–2019 "Theoretical Advancements in the Seismology of Coronal Loops," NASA grant NNX14AG05G, $450,953, 3/25/14–3/24/19; Co-Investigator: Rekha Jain

2014–2018 "Subsurface Flow Evolution over the Solar Cycle Revealed by Modern Ring-Analysis Techniques," NASA grant NNX14AC05G, $460,141, 1/1/14–12/31/18; Co-Investigators: Nicholas Featherstone & Juri Toomre

2008–2011 "Helioseismic Tools that Incorporate Corrections Arising from Magnetic Active Regions," NASA grant NNX08AQ28G, $460,000, 5/19/08–5/18/11; Co-Investigators: Deborah Haber & Juri Toomre

2008–2011 "Helioseismic Probing of Flows Coupled with Evolving and Flaring Active Regions," NASA grant NNX08AJ08G, $437,902, 2/27/08–2/26/11; Co-Investigators: Deborah Haber & Juri Toomre

2005–2010 "Tools Enabling Rapid Mapping of Solar Subsurface Weather with Time-Distance Tomography," NASA grant NNG05GM83G, $661,929, 7/15/05–7/14/10; Co-Investigators: Deborah Haber & Juri Toomre

2002–2007 "Helioseismic Probing with GONG+ of Subsurface Flows and their Coupling to Magnetic Activity," NSF grant ATM-0219581, $498,007, 11/13/02–10/31/07; Co-Investigators: Deborah Haber & Juri Toomre

2002–2007 "Developing Rapid Helioseismic Mapping of Evolving Solar Subsurface Weather and Magnetic Structures for SDO," NASA grant NAG5-12491, $517,954, 8/15/02–8/14/07; Co-Investigators: Douglas Gough, Deborah Haber, Michael Thompson & Juri Toomre

2001–2005 "Origins of Spatial Variations in Helioseismic Frequency Shifts Associated with Solar Activity," NASA grant NAG5-1F0917, $263,249, 6/01/01–5/31/05; Co-Investigators: Douglas Gough, Deborah Haber, Michael Thompson & Juri Toomre

Co-Investigator:

2024–2026 "Probing the interiors of Jupiter and gas giants through fluid dynamics simulations: Characterizing the mixing efficiency of convection and the nature of dilute cores," NASA grant 80NSSC24K092, $604,436; Principal Investigator: J.R. Fuentes

2024–2026 "Magnetic Influence on Differential Rotation throughout the Solar Interior," NASA grant 80NSSC24K0125, $1,357,173; Principal Investigator: Nicholas Featherstone

2020–2022 "Solaris – Revealing the Mysteries of the Sun's Poles," NASA solicitation NNH19ZDA013O, Midex mission Phase B, Principal Investigator: Don Hassler

2020–2021 "Processes Shaping the Solar Meridional Circulation," NASA grant 80NSSC20K0193, $885,390; Principal Investigator: Nicholas Featherstone

2018–2021 "Seeking the Deep Origins of Sunspots," NASA grant 80NSSC18K1127, $600,000; Principal Investigator: Juri Toomre

2017–2020 "The Solar Dynamo Revealed," NASA grant 80NSSC17K0008, $1,389,068; Principal Investigator: Nicholas Featherstone

2011–2014 "Dynamic Origins of Cyclic Solar Activity," NASA grant NNX11AJ36G, $1,352,100; Principal Investigator: Juri Toomre

2009–2013 "Developing Physics-Based Procedures for Helioseismic Probing of Sunspots and Magnetic Active Regions," NASA grant NNX09AB04G, $2,800,000; Institutional Principal Investigator: Juri Toomre (JILA), Principal Investigator: Douglas Braun (NWRA/ CoRA)

2008–2012 "Solar Dynamo Probed with Simulations of Turbulent Convection, Magnetism and Shear," NASA grant, NNX08AI57G, $1,217,909; Principal Investigator: Juri Toomre

2007–2012 "Helioseismic Mapping of Subsurface Flows Near Solar Filaments," NASA grant, NNX07AH82G, $443,039; Principal Investigator: Deborah Haber

2007–2009 "Validation of Local Helioseismic Inversion Methods Using Realistic, Supergranulation-Scale Simulations," NASA grant, $185,233; Principal Investigator: Robert Stein (MSU)

2006–2007 "Helioseismic Probing of Subsurface Flows with High-Resolution Ring Analyses," NASA grant NNG06GD97G, $56,000; Principal Investigator: Deborah Haber

2005–2010 "Elements of the Solar Dynamo: MHD Simulations of Convection, Rotation, Shear and Magnetism," NASA grant NNG05G124G, $1,278,621; Principal Investigator: Juri Toomre

2005–2012 "Local Helioseismic Probing on Subsurface Dynamics with HMI," NASA grant NAS5-02139, $481,066; Principal Investigator: Juri Toomre

2003–2009 "Assessing Interactions between Solar Subsurface Weather (SSW) and Magnetism," NASA grant NAG5-13520, $825,204; Principal Investigator: Juri Toomre

2003–2008 "Framework to Interpret Solar Subsurface Weather: Global Simulations of Turbulent Dynamics of the Upper Reaches of the Solar Convection Zone," NASA grant NAG5-12815, $315,000; Principal Investigator: Juri Toomre

2006–2006 "Exploring Dynamical Implications of Solar Subsurface Weather," NASA grant NAG5-11920, $56,000; Principal Investigator: Deborah Haber

2002–2006 "Exploring Dynamical Implications of Solar Subsurface Weather," NASA grant NNG06GD97G, $487,932; Principal Investigator: Deborah Haber

1999–2003 "Global and Local Helioseismic Studies of Solar Convection Zone Dynamics Using SOI-MDI on SOHO," NASA grant NRA NAG5-7996, $685,000; Principal Investigator: Juri Toomre

1998–2000 "Sources of Original and Scattered *p*–Mode Energy," NASA grant NRA 97-OSS-08, $100,022; Principal Investigator: Timothy Brown

Principal Investigator (Supercomputing Resources Awarded Separately from a NASA Grant):

2018–2019 "Seismology of the Corona's Magnetic Field," HEC grant HEC-SMD-17-1579, 100K SBUs (2.8 million core -hours)

2017–2018 "Modeling Support for Deep Helioseismic Flow Measurement," NASA HEC augmentation award SMD-16-7469, 9.0 million processor hours, 11/1/17–12/31/18

2016–2017 "Modeling Support for Deep Helioseismic Flow Measurement," NASA HEC grant SMD-16-7469, 9.8 million core-hours, 11/1/16–09/30/17

2016 "Modeling Support for Deep Helioseismic Flow Measurement," NASA HEC grant SMD-16-6913, 1.6 million core-hours, 04/30/16–10/31/16

2015–2016 "Modeling Support for Deep Helioseismic Flow Measurement," NASA HEC grant SMD-15-6478, 4.2 million core-hours, 11/01/15–04/30/16

2015–2016 "Modeling Support for Deep Helioseismic Flow Measurement," NASA HEC grant SMD-15-5894, 3.6 million core-hours, 05/01/15–06/30/16

2014–2015 "Modeling Support for Deep Helioseismic Flow Measurement," NASA HEC grant SMD-14-4892, 4.9 million core-hours, 5/1/14–6/30/15

SERVICE WORK

Service to the University of Colorado Boulder:

Department of Applied Mathematics

2024 Served on the interview committee for the hiring of an Accounting and Financial Professional

Department of Astrophysical and Planetary Sciences

2021–present Member of the Comprehensive Examination Committee for four graduate students in APS (Catherine Blume, Imogen Cresswell, Cole Tamburri, Caroline Evans)

2024 Non-advocate Chair of the Comprehensive Examination Committee for a graduate student in Caroline Evans

2010–present Member of the Thesis Committee for nine graduate students (Piyush Agrawal, Evan Anders, Kyle Augustson, Conner Bice, Nicholas Featherstone, Loren Matilsky, Ryan Orvedahl, Cole Tamburri, Imogen Cresswell)

2010–2018 Member of the Research Comprehensive Examination Committee for nine graduate students in APS (Karan Molaverdikhani, Benjamin Greer, Christopher Chronopoulos, Daniel Gole, Marcus Piquette, Ryan Ovredahl, Daniel Everding, Loren Matilsky, & Connor Bice)

2010–2019 Collaborated on the writing of ten graduate-level Comprehensive Exams (fluid dynamics and mathematical methods questions)

Department of Physics

2025 Member of the PhD Thesis Committee for Justin Nicoski

2016 Member of the Masters Comprehensive Examination (II) Committee for Andrew Hess

Department of Chemistry

2021 Member of the Oral Examination Committee for Margarita Reza

Laboratory for Atmospheric and Space Physics

2018 Internal Science Review Panel for a proposal to NASA by PI T. Woods

Service to the Profession:

2004–present Reviewed 39 papers for scientific journals and proceedings: two for Astronomy & Astrophysics, 14 for the Astrophysical Journal, 16 for the Astrophysical Journal Letters, five for Solar Physics, one for Monthly Notices of the Royal Astronomical Society, and one for a conference proceeding

2004–present Reviewed 62 grant proposals for NASA: 13 for the Solar and Heliospheric Physics (SHP) program, 14 for the Living with a Star (LWS) program, 17 for the Heliophysics Guest Investigator (HGI) program, and 18 for the Heliophysics Supporting Research program (HSR).

2009–present Member of 2 NASA grant review panels: Strategic Resource and Technology (SRT) and Heliophysics Guest Investigator (HGI) programs

2010–present Member of the Science Team for the Helioseismic and Magnetic Imager (HMI) aboard the Solar Dynamics Observatory (SDO)

2024 Rayleigh Code Development Team – Hackathon participant, June 17–21, Granby Colorado

2023 Rayleigh Code Development Team – Hackathon participant, June 12–16, Golden Colorado

2012 Served as the external Ph.D. Thesis Examiner for Marie Elizabeth Newington, Monash University, Melbourne, Australia

PRESENTATIONS

Invited Presentations:

"The Implications of the Sun's Differential Rotation on the Transport of Heat and Angular Momentum," Nordita Program on Stellar Convection: Modelling, Theory and Observations, Stockholm Sweden, August 2024

"Observational Update on the Convective Conundrum," Nordita Program on Stellar Convection: Modelling, Theory and Observations, Stockholm Sweden, September 2024

"Assessing the Observability of Deep Meridional Flow Cells," COFFIES Annual Meeting, January 2024

"Meridional flow through the lens of helioseismology," COFFIES DSC Workshop on the Sun's Near-Surface Shear Layer, November 2023

"The Tyranny of Sound: Sound-Proofing the Fluid Equations," GAFD Seminar, University of Colorado Boulder, Department of Applied Mathematics, September 2023

"Rotation and Convection: How the Coriolis Force Can Lead to Travelling Wave Convection," Astrophysics Seminar, University of Exeter, Exeter UK, July 2023

"Trapping of Thermal Rossby Waves within the Sun's Convection Zone," Fall Meeting of the American Geophysical Union, Chicago, December 2022

"Thermal Rossby Waves in a Stratified Atmosphere," LWS Focused Science Team meeting, Boulder, July 2022

"Thermal Rossby Waves within the Sun's Convection Zone," UK MHD Meeting, Sheffield UK, June 2022

"Using the Morphology and Temporal Evolution of the Sun's High-Latitude Convection as a Probe of its Dynamo State," Fall Meeting of the American Geophysical Union, New Orleans, December 2021

"Convective Flows at High-Latitude (and what they might say about the Sun's dynamo state)," Solar Orbiter – Dynamo and Solar Cycle Remote Sensing Working Group, Max Planck Institute, Germany, Remote, September 2021

"Do Coronal Loops Oscillate in Isolation?" School of Mathematics and Statistics, University of Sheffield, Sheffield, UK, Remote, May 2021

"Regimes of Rotating Convection," Geophysical/Astrophysical Fluid Dynamics Seminar, Dept. of Applied Mathematics, University of Colorado, Boulder, Colorado, April 2020

"Are Coronal-Loop Oscillations Confined to the Visible Loop?" 16th annual meeting of the Asia Oceania Geoscience Society, Singapore, July 2019

"Helioseismology," Geophysical/Astrophysical Fluid Dynamics Seminar, Dept. of Applied Mathematics, University of Colorado, Boulder, Colorado, February 2019

"Solar Convection under the Influence of Rotation," Solar Focus Series, National Solar Observatory, Boulder, Colorado, December 2017

"Solar Convection in the Rotationally Constrained Regime," School of Mathematics and Statistics, University of Sheffield, Sheffield, UK, January 2017

"Helioseismic Imaging of Supergranulation within the Upper 30 Mm of the Convection Zone," National Solar Observatory, Boulder, Colorado, October 2016.

"What's Happening inside the Sun," LWS / SDO Workshop, Squaw Valley, California, May 2011.

"3D Helioseismic Inversions of Ring-Analysis Flow Measurements," GONG 2010, Aix-en-Provence, France, June 2010.

"Measuring Meridional Circulation Deep within the Sun," IAU Symposium 271, Nice, France, June 2010.

"Subsurface Circulations Established by Active Regions," SHINE 2009, Wolfville, Nova Scotia, Canada, Aug 2009.

"Subsurface Circulations within Active Regions," HAO Seminar, High Altitude Observatory, Boulder, Colorado, April 2009.

"The Generation of Coronal-Loop Waves below the Photosphere by *p*-Mode Forcing," Departmental Seminar, Applied Mathematics, University of Sheffield, UK, January 2008.

"Ring Analysis," Solar Physics Division Summer School on Helioseismology, Boulder, Colorado, 2005.

"Doppler Velocity and Intensity Measurements of *p*-Mode Surface Amplitudes," University of California, Northridge, California, 1998.

Oral Presentations:

"Global Confinement of the Solar Tachocline by a Dynamo Magnetic Field," Hindman, B.W., Matilsky, L., Featherstone, N.A., & Toomre, J., Triennial Earth-Sun Summit (TESS) meeting, Belleview, WA, August 2022

"Numerical/Theoretical Modeling of Solar Meridional Circulation," Hindman, B.W., Featherstone, N.A., Brown, B.P., Korre, L., & Camisassa, M., LWS Focused Science Team Meeting, July 2021

"Using Observations of High-Latitude Flows to Ascertain the Sun's Convective Regime," Hindman, B.W., Featherstone, N.A., Lamb, D., & Brown, B.P., Fall Meeting of the American Geophysical Union, Online, December 2020.

"Regimes of stellar convection as a function of rotation rate and Rayleigh number," StellarHydro Days V, University of Exeter, Exeter, United Kingdom, June 2019.

"The Scaling Law for Rotating Stellar Convection in the High-Rayleigh-Number Regime," Hindman, B.W. & Featherstone, N.A., Fall Meeting of the American Geophysical Union, Washington D.C., December 2018.

"Rotational Influence on Stellar Convection," Hindman, B.W., Faculty Research Talk, University of Colorado, Boulder, Colorado, October 2018.

"Rotational Influence on Stellar Convection," Hindman, B.W., Faculty Research Talk, University of Colorado, Boulder, Colorado, October 2017.

"Helioseismic Imaging of Supergranulation throughout the Sun's Near-Surface Shear Layer," Hindman, B.W. & Greer, B.J.,& Toomre, J., NSO, Boulder, Colorado, Oct 2016.

"Helioseismic Imaging of Supergranulation throughout the Sun's Near-Surface Shear Layer," Hindman, B.W. & Greer, B.J.,& Toomre, J., American Astronomical Society—Solar Physics Division, Boulder, Colorado, May–June 2016.

"Convective Energy Transport in the High-Rayleigh-Number Regime," Hindman, B.W. & Featherstone, N., NASA LWS Workshop on Solar Dynamo Frontiers: Helioseismology, 3D Modeling, and Data Assimilation, HAO, Boulder, Colorado, June 2015.

"Are some coronal loop oscillations interference fringes?" Hindman, B.W. & Rekha, J., Solar Physics Discussion Group, NSO & LASP, Boulder, Colorado, December 2014.

"Center-to-limb systematics for MDI," Hindman, B.W., HMI Workshop, Stanford University, Palo Alto, California, Jul 2014.

"High-Resolution Ring Analysis," Hindman, B.W., Greer, B., Featherstone, N., & Toomre, J., 50th Anniversary of Helioseismology, Tucson, Arizona, May 2013.

"Acoustic Imaging of the Solar Interior," Hindman, B.W., Faculty Research Talk, University of Colorado, Boulder, Colorado, Oct 2013.

"Acoustic Imaging of the Solar Interior," Hindman, B.W., Faculty Research Talk, University of Colorado, Boulder, Colorado, Oct 2012.

"Spatial Windowing in Ring Analysis," Hindman, B.W. & Greer, B., LWS Workshop, NSO, Tucson, Arizona, Mar 2012.

"Acoustic Imaging of the Solar Interior," Hindman, B.W., Faculty Research Talk, University of Colorado, Boulder, Colorado, Oct 2011.

"Acoustic Imaging of the Interior of the Sun," Hindman, B.W., Faculty Research Talk, University of Colorado, Boulder, Colorado, Jan 2010.

"New 3-D inversion modules for ring-diagram data," HMI Science Team Meeting, Stanford, California, September 2009.

"Subsurface Circulations Established by Active Regions," SHINE 2009, Wolfville, Nova Scotia, Canada, August 2009.

"Local Helioseismology," Hindman, B.W., Faculty Research Talk, University of Colorado, Boulder, Colorado, Jan 2008.

"Subsurface Flows and the Evolution of Solar Filaments," SOHO Workshop, Giardini Naxos, Sicily, Italy, May 2006.

"Solar Subsurface Flows," GONG 2008 / SOHO XXI, Boulder, Colorado, October 2008.

"Helioseismic Flow Comparisons," SDO Team Meeting, Napa, California, March 2008

"Subsurface Flows Underlying a Filament," Boulder Solar Day, High Altitude Observatory, Boulder, Colorado, May 2006.

"Solar Subsurface Weather: Recent Measurements of Flows Using Ring-Diagram Analysis," AAS meeting, Albuquerque, New Mexico, 2002.

"Comparing Local Frequency Shifts Measured through Ring–Diagram Analyses with Global Frequency Shifts," 10th SOHO Workshop, Santa Cruz de Tenerife, Spain, October 2 2000.

"Local *p*-Mode Frequency Shifts Used as Tracers of Solar Activity," 9th SOHO Workshop, Stanford, California, July 1999.

"Acoustic Power Maps of Solar Active Regions," Joint SOHO/GONG Meeting, Stanford, California, December 1997.

Poster Presentations (since 2010):

Featherstone, N., Blume, C., Camisassa, M., Fuentes, R., Hindman, B., Korre, L., & Matilsky, L. 2025, "Exploring the Role of Density Stratification and Convective Rossby Number on Convective Length-scale and Amplitude," SDO 2025 Science Workshop: A Gathering of the Helio-hive, Boulder CO

Hindman, B., Blume, C., Camisassa, M., Featherstone, N., Fuentes, R., Korre, L., Mane, B., & Matilsky, L. 2025, "Using the Morphology and Temporal Evolution of the Sun's High-Latitude Convection as a Probe of its Dynamo State," SDO 2025 Science Workshop: A Gathering of the Helio-hive, Boulder CO

Hindman, B.W., Fuentes, J.R., Shu, Z. & Cumming, A. 2025, "Rotation Stalls the Convective Mixing of Giant Planets," *IPAM Workshop on Rotating Turbulence: Interplay and Separability of Bulk and Boundary Dynamics,* UCLA, Los Angeles, CA

Hindman, B.W., Jain, R., & Blume, C. 2023, "A unifying model of mixed inertial modes in the Sun," *AGU Fall Meeting 2023*, abstract id. SH13D-27110

Hindman, B.W., Fuentes, J.R., Cumming, A., & Anders, E. 2023, "Rotation decreases convective mixing in gas giants," *AGU Fall Meeting 2023*, abstract id. P23F-3107

Blume, C., Hindman, B.W., & Matilsky, L.I. 2023, "Inertial Oscillations in a solar-like simulation," *AGU Fall Meeting 2023*, abstract id. P23G-3114

Dikpati, M., Braun, D.C., Featherstone, N.A., Hindman, B.W., Komm, R., Liu, Y., Upton, L., Wang, H. 2023, "Implications of solar flows and waves for shaping the activity cycle," *AGU Fall Meeting 2023*, abstract id. SH13D-2810

Hassler, D. et al. 2023, "Solaris: A focused solar polar mission," *AGU Fall Meeting 2023*, abstract id. SH32-10

Matilsky, L., Brummel, N., Hindman, B.W., & Toomre, J. 2023, "Solar Tachocline Confinement in Global Dynamo Simulations," *AGU Fall Meeting 2023*, abstract id. SH11B-03

Blume, C., Hindman, B.W., & Matilsky, L.I. 2023, "Inertial Oscillations in a solar-like simulation," *SHINE 2023 Workshop*, abstract id. 016

Fuentes, J.R., Hindman, B.W., Zhao, J., Blume, C., Camisassa, M., Featherstone, N.A., Hartlep, T., Matilsky, L.I., Korre, L. 2023, "Meridional circulation through the lens of helioseismology," *SHINE 2023 Workshop*, abstract id. 020

Fuentes, J.R., Cumming, A., Anders, E., & Hindman, B.W. 2023, "Rotation reduces convective mixing in Jupiter and other cold gas giants," *54th Meeting of the Solar Physics Division*, Bulletin of the American Astronomical Society, 55, id. 302.06

Hassler, D.M. et al. 2023, "Solaris: A focused solar polar mission," *54th Meeting of the Solar Physics Division*, Bulletin of the American Astronomical Society, 55, id. 108.13

Hassler, D.M. et al. 2023, "Solaris: A focused solar polar mission," *SHINE 2023 Workshop*, abstract id. 017

Dikpati, M., Braun, D.C., Featherstone, N.A., Hindman, B., Komm, R., Liu, Y., Upton, L., & ang, H. "Observations and Simulations of Solar Flows and Their Roles in Magnetic Activity Patterns at the Surface", *AGU Fall Meeting 2022*, abstract id. SH15D-1515

Blume, C., Hindman, B.W., Matilsky, L., Korre, L., & Featherstone, N.A. 2022, "Confining the thermal spread of the tachocline", *AGU Fall Meeting 2022*, abstract id. SH15D-1501

Hindman, B.W. & Jain, R. 2022, "Radial Trapping of Thermal Rossby Waves within the Sun's Convection Zone," Triennial Earth-Sun Summit (TESS) meeting 2022, abstract id. 341

Stejko, A., Kosovichev, A.G., Featherstone, N.A., Guerrero, G., Hindman, B., Matilsky, L., & Warnecke, J. 2022, "Using time–distance helioseismology to constrain simulations of meridional circulation in the Sun, *AGU Fall Meeting 2022*, abstract id. SH14B-03

Blume C., Hindman, B.W., & Matilsky, L. 2022, "Rossby Waves in the Radiative Interior," Triennial Earth-Sun Summit (TESS) meeting 2022, abstract id. 211

Dikpati, M., Braun, D., Featherstone, N., Hindman, B., Komm, R., Liu, Y., Scherrer, P., Upton, L., & Wang, H. 2021, "Global Solar Flows and their Impact on Magnetic Activity," *AGU Fall Meeting 2021*, abstract id. SH55D-1872

Matilsky, L.I., Hindman, B., & Toomre, J. 2021, "Global Confinement Of The Solar Tachocline By A Convective Dynamo," *American Astronomical Society meeting #238*, Bulletin of the American Astronomical Society, 53, id. 304.01

Hindman, B.W., Featherstone, N.A., & Julien, K. 2019, "Morphological Regimes of Rotating Convection in Stratified Spherical Shells," *AGU Fall Meeting 2019*, abstract id. NG43A-0890

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