Rebecca J. Nevin
Curriculum Vitae

Doctoral Candidate
Department of Astrophysical and Planetary Sciences
University of Colorado Boulder
Boulder, CO, 80309

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Education

Ph.D. in Astrophysics, University of Colorado	May, 2019
M.S. in Astrophysics, University of Colorado	Nov, 2015
B.A. in Astrophysics, Whitman College	May, 2013

Fellowships & Awards

Early Career Scientist Decadal Survey Participant	Oct, 2018
PEO Scholar Award Alternate	Apr, 2018
3 Minute Thesis Competition - 2nd Place	Feb, 2018
Ray Mace Smith Graduate Fellowship	Apr, 2016
High Pass on Master's Exam	Nov, 2015
NSF Graduate Fellow	2014 - 2017
Graduated Summa Cum Laude, Whitman College	May, 2013
Phi Beta Kappa	May, 2013
Sigma Xi	Mar, 2013

Research Experience

Graduate Research Assistant, 2017 - present
Simulated Galaxy Imaging and Kinematics
University of Colorado
Advisor: Julie Comerford and Laura Blecha
Used mockup spectra and images from SUNRISE hydrodynamics simulations of galaxy mergers to create a classification with Linear Discriminant Analysis to identify galaxy mergers in SDSS.

Graduate Research Assistant, 2013 - 2016
Active Galactic Nuclei (AGN) Kinematics and Outflows
University of Colorado
Advisor: Julie Comerford
Developed a kinematic classification scheme to identify the origin of emission lines. Implemented MCMC to constrain the energy of AGN-driven outflows.

Undergraduate Research Assistant, Summer 2012
Recoiling Supermassive Black Holes
Harvard-Smithsonian Center for Astrophysics
Advisor: Francesca Civano
Developed an imaging method to search for recoiling SMBHs in the COSMOS survey. Applied imaging decomposition (GALFIT) to identify offset stellar bulges.

2011 - 2012

Undergraduate Research Assistant,
Globular Cluster Stellar Populations
Whitman College
Advisor: Nathaniel Paust

Summer 2011

Undergraduate Research Assistant,
Spectropolarimeter Characterization
Institute for Astronomy, Maui
Advisor: David Harrington

Refereed Publications

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[8] *"Accurate Identifications of Galaxy Mergers with Imaging"*
Nevin, R., Blecha, L., Comerford, J. & Greene, J., 2018, ApJ submitted

[7] *"The Origin of Double-Peaked Narrow Lines in Active Galactic Nuclei IV: Association with Galaxy Mergers"*
Comerford, J., **Nevin, R.**, Stemo, A., Müller-Sánchez, F., Barrows, R., Cooper, M. & Newman, J., 2018, ApJ, 867, 66

[6] *"Two Separate Outflows in the Dual Supermassive Black Hole System NGC 6240"*
Müller-Sánchez, F., **Nevin, R.**, Comerford, J., Davies, R., Privon, G. & Treister, E., 2018, Nature, 556, 345

[5] *"The Origin of Double-Peaked Narrow Lines in Active Galactic Nuclei III: Feedback from Biconical AGN Outflows"*
Nevin, R., Comerford, J., Müller-Sánchez, F., Barrows, R. & Cooper, M., 2018, MNRAS, 473, 2160

[4] *"An Active Galactic Nucleus Caught in the Act of Turning Off and On"*
Comerford, J., Barrows, R., Müller-Sánchez, F., **Nevin, R.**, Greene, J., Pooley, D., Stern, D. & Harrison, F., 2017, ApJ, 849, 102

[3] *"The Origin of Double-Peaked Narrow Lines in Active Galactic Nuclei II: Kinematic Classifications for the Population at $z < 0.1$"*
Nevin, R., Comerford, J., Müller-Sánchez, F., Barrows, R. & Cooper, M., 2016, ApJ, 832, 67

[2] *"The Origin of Double-Peaked Narrow Lines in Active Galactic Nuclei I: Very Large Array Detections of Dual AGNs and AGN Outflows"*
Müller-Sánchez, F., Comerford, J., **Nevin, R.**, Barrows, R., Cooper, M. & Greene, J., 2015, ApJ, 813, 2

[1] *"Calibrating and Stabilizing Spectropolarimeters with Charge Shuffling and Daytime Sky Measurements"*
Harrington, D., Kuhn, J. & **Nevin, R.**, 2015, Astronomy & Astrophysics, 578, 126

Other Publications

[1] *"This Father's Day is One of the Longest Days in the History of the Earth - Here's Why"*
Nevin, R., 2015, Universe Today

[2] *"Going Above & Beyond: A Cross-Disciplinary Planetarium Program"*
Rehnberg, M. & **Nevin, R.**, 2016, AAS Education Task Force White Paper

Invited Colloquia

University of Wyoming	Sep 28, 2018

Seminars & Conference Talks

AAS 233 Winter Meeting, Seattle, WA	Jan, 2019
Seminar, Carnegie Observatories	Oct 26, 2018
Seminar, Space Telescope Science Institute	Oct 12, 2018
Seminar, Princeton University	Oct 10, 2018
AAS 232 Summer Meeting, Denver, CO	Jun 5, 2018
Seminar, University of Florida	Mar 28, 2018
CASA/JILA Seminar, University of Colorado	Mar 22, 2018
SDSS-IV/MaNGA Meeting and Workshop, Campeche, Mexico	Dec 7, 2017
AGN Winds on the Georgia Coast, Jekyll Island, Georgia	Jun 28, 2017
CASA/JILA Seminar, University of Colorado	Jun 16, 2017
Great Lakes Quasar Symposium, London, Ontario	May 4, 2016

Supercomputing Allocations

Co-PI of XSEDE Supercomputer Allocation, NSF 2018
Allocated 1242000 CPU-hours

PI of JANUS/Summit Supercomputer Allocation, University of Colorado 2015
Allocated 200000 CPU-hours

Observing Experience

PI of six successful Apache Point Observatory Proposals 2014 - 2016
Dual Imaging Spectrograph, 3.5m ARC Telescope
Observed 34.5 half nights

Co-PI of MDM Observatory (Kitt Peak) Research 2012
Observed five nights

Teaching Experience

Instructor of Record, ASTR-1000 Summer 2017
University of Colorado
Developed and taught a 25 student course. Designed inquiry-based activities.

Professional Development Program (PDP)
Institute for Scientists & Engineer Educators, University of California 2016
Developed an inquiry-based exoplanet lab for a program for first generation college students.

Teaching Assistant
University of Colorado 2013 - 2014
Taught lab courses (30 students) and assisted with interactive learning techniques for the large introductory classes.

Undergraduate Teaching Assistant and Tutor
Whitman College
Guided student telescope labs and indoor physics tutorials, led community outreach telescope nights, and gave planetarium shows to local schools 2011 - 2013

Professional Development

Statistical Learning, Stanford Online	2018 - present
Mentorship Training, University of Colorado	Aug 2018
Rethinking Scientific Presentations: The Assertion-Evidence Approach	Jan 2018
Running Singularity Containers on SDSC's Comet Supercomputer	Jun 2018
Managing Research Workflows with Singularity Containers	Apr 2018
Software Carpentry Workshop, Research Computing	Mar 2017
Science Writing Course, University of Colorado	2016
Elected Comps I Committee Member, University of Colorado	Fall 2015
Astrostatistics Summer School, Penn State	Jun 2015
Faculty Hiring Committee Member, University of Colorado	Jan 2014

Outreach and Communication

Supermassive Black Hole Documentary Film 2018 - present
Writing and developing an educational movie about supermassive black holes and galaxy mergers in partnership with the Fiske Planetarium.

Science Speak-Easy: Science Communication Workshop 2018 - present
Organized and facilitated an annual workshop for graduate students and postdocs at University of Colorado on giving public and scientific talks.

The Science of Sci Fi 2017 - present
Developed and ran this talk series at Fiske Planetarium, aimed at engaging the public with popular sci fi works.
My talk: *Zombie Pathology: A Survival Guide for Pandemics in the 21st Century*

Science and Society 2014 - present
Ran this talk series at Fiske Planetarium, helped graduate students and postdocs develop talks
My talks: *It Came from Space! The Solar System's Ultimate Weapon and How we Hope to Stop it, Galactic Getaways: Life from a Different Perspective*

Promoting an Inclusive Community in Astronomy (PICA) 2013 - present
Organized and led discussions of this graduate-student run diversity group

Astronomy on Tap: Colorado 2016 - 2017
My talks: *Gravitational Waves, The Dino's Demise*

Science Writer 2013 - 2017
Wrote for the blog *Cosmic Conversations*, communicated a wide range of popular science topics

PhD Comics 2016
Research group featured in *Supermassive Black Holes Explained* (http://www.phdcomics.com/comics.php?f=1864)

ComSciCon June 2015
Attended this science communication conference preparing today's scientists to better communicate their science to a broader audience

Earth Explorers 2014 - 2015
Worked with a group of underserved middle schoolers in Longmont, CO to develop a movie about black holes