# Kyle W. Willett

School of Physics and Astronomy University of Minnesota Minneapolis, MN 55455

Education

Ph.D., Astrophysical and Planetary Sciences, 2011

M.S., Astrophysical, Planetary, and Atmospheric Sciences, 2007

B.A., PHYSICS, 2005 (magna cum laude)

#### **Research Interests**

- Galaxy morphology
- Blazars
- Astrophysical masers

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**University of Colorado**, Boulder, CO "OH Masers from Andromeda to the Peak of Cosmic Star Formation"

Thesis advisor: Prof. Jeremy Darling **University of Colorado**, Boulder, CO

Carleton College, Northfield, MN

- Galaxy evolution
- Citizen science
- Active galactic nuclei

#### **Research Experience**

- RESEARCH ASSOCIATE, University of Minnesota (2011–present). Postdoctoral research with the group of Prof. Lucy Fortson. Lead data scientist for the Galaxy Zoo project (2015–). Led reduction and analysis of the Galaxy Zoo 2 project. Worked on environmental properties of blazars/BL Lacs and the evolutionary blazar sequence. Developed new research tools for citizen science projects at the Zooniverse.
- GRADUATE RESEARCH ASSISTANT, University of Colorado (2006–2011). Ph.D. thesis research on OH masers, including both single-dish and interferometric searches for masers as well as ground- and space-based infrared studies of maser host galaxies with Prof. Jeremy Darling. Additional research on infrared properties of young radio galaxies with Prof. John Stocke.

JUNIOR RESEARCH ASSOCIATE, National Radio Astronomy Observatory (Jun–Aug 2006). Reduction and analysis of a high-frequency radio survey for molecular absorbers at redshift  $z \sim 1$ , with Drs. Chris Carilli and Nissim Kanekar.

## **Teaching Experience**

- LECTURER IN PHYSICS, University of Minnesota (Jan–May 2014). Instructor for PHYS 1101 course, "Introductory College Physics I" (classical mechanics for non-major undergraduates). Created and supervised lectures, assignments, exams, and lab activities for a 200-student course.
- LECTURER IN ASTRONOMY, University of Colorado (June–July 2009). Instructor of record for the ASTR 1110 course "The Solar System". Created all lectures, assignments, exams, and observing activities for a 30-student course.

- TEACHING ASSISTANT, University of Colorado (2005–2006). Instructor for two laboratory sections of "Introductory Astronomy" and for two laboratory sections of "Accelerated Introductory Astronomy". Designed a new lab activity for the accelerated course and rewrote the solution set for the coursewide lab manual.
- GRADUATE TEACHER PROGRAM, University of Colorado (2005–2011). Participated in over 30 hours of educational workshops and seminars through the Graduate Teacher Program, including both astronomy-specific and general pedagogy. Included faculty observation and feedback, video recording, and one-on-one evaluations of my teaching performance.

## **Observational Experience**

- Principal investigator on Green Bank Telescope proposal 10B-035 (70 hrs.)
- Principal investigator on Arecibo Observatory proposal A2505 (3 hrs.)
- Co-investigator on Green Bank Telescope proposals 08A-043 (25 hrs.), 08B-035 (71 hrs.), 10C-039 (30 hrs.)
- Co-investigator on VLA proposal AD583 (25 hrs.)
- Co-investigator on Spitzer Space Telescope proposals 50591, 80070
- Near-infrared observing at Apache Point 3.5m ARC telescope (3 half-nights).
- Two on-site observing runs for radio pulsars at Parkes Observatory, NSW, Australia.

### Awards and Recognition

- Ph.D. candidacy exam high pass, University of Colorado (2007)
- Phi Beta Kappa, Carleton College (2005)
- Lawrence Gould Prize in Natural Science, Carleton College (2005)
- Mike Ewers Award in Astronomy, Carleton College (2004)

#### Service and Membership

- Referee for ApJ, MNRAS, PASP (2010–present)
- Full Member, American Astronomical Society (2005–present)

• Graduate student **committee member**, Dept. of Astrophysics and Planetary Science, Univ. of Colorado: colloquium (2005–06), graduate exams (2007), graduate admissions (2008), faculty representative (2009–2010)

- Sommers-Bausch Observatory open house volunteer (2005–2011)
- Astronomy Day volunteer, University of Colorado (2005–2011)

#### Invited talks

- University of Colorado, March 2008
- Minnesota Astronomical Society, August 2011
- Augsburg College, October 2011
- University of Minnesota, November 2011
- Yale University, April 2013
- University of Portsmouth, May 2013

- University of Oxford, May 2013
- Royal Astronomical Society, May 2013
- Minnesota State University, Mankato, Feb 2014
- Bell Museum, University of Minnesota, Feb 2015
- Grinnell College, Apr 2015
- University of Kentucky, Feb 2016

## **Professional references**

#### **Prof.** Jeremy Darling

University of Colorado Dept. of Astrophysics and Planetary Science UCB 391 Boulder, CO 80309 jdarling@colorado.edu (303) 492-4881

#### Prof. Kevin Schawinski

ETH Zürich Dept. of Physics Wolfgang-Pauli-Str. 27 8093 Zrich, Switzerland kevin.schawinski@phys.ethz.ch +41 44 633 76 08

#### Prof. Chris Lintott

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#### Prof. Lucy Fortson

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