University of Wyoming
Dept. of Physics & Astronomy

DAVID O. COOK

www.physics.uwyo.edu/~davec
dcook12@uwyo.edu
(612) 810-1638

1000 E. University, Dept. 3905
Laramie, WY 82071, USA

EDUCATION

UNIVERSITY OF WYOMING — Laramie, WY
Ph.D. Candidate in Astrophysics/Physics, September 2009 – **Anticipated**: August, 2015

UNIVERSITY OF MINNESOTA — Minneapolis, MN
Bachelor of Science degree in Astrophysics, May 2008
Bachelor of Science degree in Physics, May 2008
Bachelor of Science degree in Chemistry, August 2004

RESEARCH EXPERIENCE

UNIVERSITY OF WYOMING — Laramie, WY
Graduate Student – Astronomy/Physics Dept, September 2009 – Present
- Advisor: **Professor Daniel Dale**, Ph.D.
- Independently developed my thesis project using a panchromatic data set (UV-IR) of 258 galaxies
- Quantified relationships between the distributions of star-forming regions and environment
- Constructed FUV-optical-IR spectral energy distributions (SEDs) of these 258 galaxies

UNIVERSITY OF WYOMING — Laramie, WY
Academic Professional Research Scientist – Astronomy Dept, July 2008 – August 2009
- Advisor: **Professor Daniel Dale**, Ph.D., with responsibilities for:
- All data reduction for the 5 year Hα imaging project: WYSH
- Observations of Hα and optical imaging (8 nights a month for 1 year)

MCDONALD OBSERVATORY — Fort Davis, TX
REU Summer Intern, June 2007 – September 2007
- Advisor: **Resident Astronomer Mathew Shetrone**, Ph.D.
- Derived alpha abundances of the Leo II dwarf galaxy.

UNIVERSITY OF MINNESOTA — Minneapolis, MN
Undergraduate Researcher – Astrophysics Dept., September 2006 – June 2008
- Advisor: **Professor Evan Skillman**, Ph.D.
- Performed photometry on HST images and fit these data to stellar models
- Generated chronologically and spatially resolved star formation histories of dwarf irregular galaxies.
- Developing my own project exploring the clustered star formation fraction in dwarf galaxies

AWARDS/FUNDING

NASA-AURA "LEGUS: Legacy ExtraGalactic UV Survey" as Co-PI: $36,749 (2014-2015)
NASA Space Grant Consortium, Graduate Fellowship (University of Wyoming, 2010-2011)
NASA-AURA "ANGST: ACS Nearby Galaxy Treasury Survey" as Co-PI: $23,000 (2009 – 2010)
Ted and Laverne Jones Scholarship, University of Minnesota, May 2007
Undergraduate Research Opportunity Program, University of Minnesota, June 2002

PUBLICATIONS

10) **Cook** et al. 2014, MNRAS (in preparation), "Spitzer Local Volume Legacy (LVL) Star-Forming Regions: Luminosity Functions"
9) **Cook** et al. 2014, MNRAS, 245, 1, "Spitzer Local Volume Legacy (LVL) SEDs and Physical Properties"
8) **Cook** et al. 2014, MNRAS, , 245, 1, "The Spitzer Local Volume Legacy (LVL) Global Optical Photometry"
7) **Cook** et al. 2014, MNRAS, , 245, 1, "Empirical ugri-UBVRc Transformations for Galaxies"
6) **Cook** et al. 2012, ApJ, 751, 100, "The ACS Nearby Galaxy Survey Treasury. X. Quantifying the Star Cluster Formation Efficiency of Nearby Dwarf Galaxies"
5) Cannon et al. 2011, ApJ, 735, 1, "The M81 Group Dwarf Irregular Galaxy DDO165.II. Connecting Recent Star Formation with ISM Structures and Kinematics"
4) Cannon et al. 2011, ApJ, 735, 1, "The M81 Group Dwarf Irregular Galaxy DDO165.I. High Velocity Neutral Gas in a Post-Starburst System"
3) Moore et al. 2010, AJ, 140, 253, "The Wyoming Survey for Hα. III. A Multi-wavelength Look at Attenuation by Dust in Galaxies Out to z ~ 0.4"
2) Dale et al. 2010, ApJ, 712, 189, "The Wyoming Survey for Hα. II. Hα Luminosity functions at z ~ 0.16, 0.24, 0.32, and 0.40"
1) Shetrone et al. 2008, AJ, 137, 62, "Chemical Abundances of the Leo II Dwarf Galaxy

PRESENTATIONS

ORAL

"Spitzer Local Volume Legacy (LVL) Star-Forming Regions: Luminosity Functions"

- **Space Telescope Science Institute**, Local Lunch Group, December 12th, 2014

"Spitzer Local Volume Legacy (LVL) Dust Properties in Low-Mass Galaxies"

- **University of Arizona**, A workshop in memory of Charles W. Engelbracht, December 2nd, 2014

"Clustered Star Formation in Nearby Dwarf Galaxies" (Colloquium Talk)

- **Denver University**, September 18th, 2013
- **University of Minnesota**, September 6th, 2013
- **Macalester College**, September 5th, 2013

POSTER

- "Optical Photometry of the Local Volume Legacy (LVL) Survey" **Cook et al. 2013;** American Astronomical Society, AAS Meeting #223, #254.36; Washington, D.C. (2014)
- "The ACS Nearby Galaxy Survey Treasury. X. Quantifying the Star Cluster Formation Efficiency of Nearby Dwarf Galaxies" **Cook et al. 2012**; Lowell Observatory Workshop: Star Formation in Dwarf Galaxies, Flagstaff, AZ (2012)
- "Derived Abundances of the Leo II Dwarf Galaxy" **David Cook**, M. Shetrone, M. Siegel, T. Bosler; American Astronomical Society, AAS Meeting #211; Austin, TX (2008)

OBSERVING

Cerro Tololo Inter-American Observatory (CTIO), La Serena, Chile

- Blanco 4m Telescope -5 nights, NEWFIRM infrared imager

McDonald Observatory, University of Texas at Austin:

- HET 11m Telescope -1 night, Low Resolution Spectrograph (LRS)
- Smith 2.7m Telescope -2 nights, Large Cass Spectrometer (LCS)
- Struve 2.1m Telescope -12 nights, Cass Echelle (CE) spectrograph
- 0.8m Telescope -6 nights, Prime Focus Corrector (PFC) imager

Steward Observatory, University of Arizona:

- BOK 2.3m Telescope -15 nights, 90 prime imager

Wyoming InfraRed Observatory (WIRO), University of Wyoming:

- 2.3m Telescope
  - 300+ nights, Prime Focus Camera (PFC) imager
  - 1 night, WIRO-Long Slit (LS) spectrograph

TEACHING

UNIVERSITY OF WYOMING

Instructor, Survey of Astronomy (ASTRO 1050), Summer 2013

- Developed studio style class – combined lecture and lab format used to promote critical thinking skills
- Received the highest evaluation in all teaching related categories

Substitute instructor for graduate level interstellar medium (ISM) course, one week Fall 2012

- Presented lectures on graduate level course material
- Instructed class in short journal article presentations.

Substitute instructor for graduate level cosmology course, one week Fall 2013

- Presented lectures on graduate level course material

Graduate Teaching Assistant, Survey of Astronomy, 2009-2010

- Led laboratories utilizing inquiry-based strategies to promote critical thinking skills.

Physics at Night Tutor, 2009 - 2012

- Assisted students with homework problems in all physics courses offered.

UNIVERSITY OF MINNESOTA

Undergraduate Teaching Assistant, Introduction to Astronomy, 2007-2008

- Led weekly laboratories, graded and proctored exams for introductory astronomy class.

PUBLIC OUTREACH

UNIVERSITY OF WYOMING

- Astronomy career presentation, 1st graders, Summer 2013
- Judge at Junior Science and Humanities Symposium, March 2012, 2013, & 2014
- Judge for Wyoming State Science Fair, March 2011, 2013, & 2014
- Wyoming Astro-Camp supernovae presentation and demonstration (Summer 2010 & 2011)
- Conducted star parties and physics demonstrations at the Wyoming State Science Fair (2010-Present)
- Conducted private & public tours of the Wyoming InfraRed Observatory (WIRO) (2008-Present)

MCDONALD OBSERVATORY, UNIVERSITY OF TEXAS AT AUSTIN

- Assisted with star parties including a constellation tour (Summer 2007)

COMPUTER SKILLS

Operating Systems	Advanced	Intermediate	Basic
· Linux/Unix	· IDL	· HTML	· AWK
· Macintosh	· IRAF	· Shell scripting	· Python
· Windows	· LaTex	· C++	
	· Microsoft Office		
	· Source Extractor		

PROFESSIONAL MEMBERSHIPS & SERVICES

Junior Member – American Astronomical Society (AAS), 2007 – Present
Referee – Monthly Notices of the Royal Astronomical Society (MNRAS), 2013

PROFESSIONAL COLLABORATIONS

ANGST – Responsible for star clusters in ANGST dwarf galaxies
LVL – Responsible for star-forming regions in all LVL galaxies
LEGUS – Responsible for star clusters in LEGUS dwarf galaxies

PROFESSIONAL REFERENCES

Dr. Daniel Dale, Professor
University of Wyoming
1000 E. University Ave, Dept. 3905
Laramie, WY 82071
Email: ddale@uwyo.edu
Phone: +1 (307) 766-5154

Dr. Anil Seth, Assistant Professor
University of Utah
201 James Fletcher Bldg. 115 S. 1400 E.
Salt Lake City, UT 84112-0830
Email: aseth@astro.utah.edu
Phone: +1 (801) 585-7793

Dr. Janice Lee, Assistant Astronomer
The Space Telescope Science Institute
3700 San Martin Dr.
Baltimore, MD 21218
Email: jlee@stsci.edu
Phone: +1 (410) 338-4262