

# KEVIN R. COVEY

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 with covey to combat LaTeX and PDF savvy spammers

## Education

UNIVERSITY OF WASHINGTON	Expected Spr. 2006
Ph.D. in Astronomy	
Thesis Title: "Probing Low Mass Star Formation in Clusters and the Field"	
Thesis Advisors: Suzanne L. Hawley & Thomas P. Greene	
UNIVERSITY OF WASHINGTON	Aug. 2002
M.S. in Astronomy	
CARLETON COLLEGE	Jun. 2000
B.A. in Physics and Astronomy, magna cum laude	

## Honors

NASA Graduate Student Research Program Fellow, 2003-2005  
 Distinction in the Major – Physics & Astronomy, 2000  
 Elected to Sigma Xi, 2000

## Research Experience

GRADUATE STUDENT RESEARCHER, U. WASHINGTON/NASA AMES	2003 – Present
Supervisor: Thomas P. Greene	
Analyzing near-IR spectra of embedded low mass protostars.	
GRADUATE RESEARCH ASSISTANT, U. WASHINGTON	2001 – Present
Supervisor: Suzanne Hawley	
Studying galactic stellar population with matched SDSS/2MASS photometry and spectroscopy of thousands of candidate late type dwarfs.	
GRADUATE RESEARCH ASSISTANT, U. WASHINGTON	2001 – 2002
Supervisor: George Wallerstein	
Measured chemical abundances of red giants in NGC 3201.	
AAO VACATION STUDENT, ANGLO-AUSTRALIAN OBSERVATORY	Dec. 1999 – Feb. 2000
Supervisor: Chris Tinney	
Reduced and analyzed time-series narrow-band photometry of Kelu-1.	
STScI SUMMER STUDENT, SPACE TELESCOPE SCIENCE INSTITUTE	Summer 1999
Supervisor: Daniela Calzetti	
Reduced and analyzed narrow-band photometry of starburst galaxies.	
REU RESEARCH ASSISTANT, BUCKNELL UNIVERSITY	Summer 1998
Supervisor: Ned Ladd	
Identified dense cores from position and velocity structure in C <sup>18</sup> O spectra.	

## Observing Experience

Near-Infrared Spectroscopy (*Keck II, Apache Point Observatory*)  
 Optical Spectroscopy (*Apache Point Observatory*)  
 Survey Data Extraction (*Sloan Digital Sky Survey, 2 Micron All Sky Survey, Guide Star Catalog*)  
 Near-Infrared Imaging (*Apache Point Observatory, Keck II – AO*)  
 Radio Spectroscopy (*Haystack Observatory, Five College Radio Astronomy Observatory 14-m*)

<b>Invited Talks</b>	SEARCHING FOR PROTO-BROWN DWARFS Ultra Low Mass Star Formation Meeting, La Palma, Canary Islands	June 2005
	REFINING THE STELLAR CENSUS: LOW MASS STARS IN SDSS & 2MASS National Society of Black Physicists, Washington DC	Feb. 2004
	SEARCHING FOR BROWN DWARFS WITH SDSS IAU Symposium 211: Brown Dwarfs, Waikoloa, Hawai'i	May 2002
	CHARACTERIZING M, L & T DWARFS IN THE SDSS SDSS Collaboration Meeting, Kyoto, Japan	Oct. 2001
<b>Teaching Experience</b>	INSTRUCTOR, U. WASHINGTON Instructor for Introductory Astronomy class.	Spring 2003
	TEACHING ASSISTANT, U. WASHINGTON Led 4 night observing runs at the UW 30" for undergraduate research projects.	Summer 2002, 2005
	TEACHING ASSISTANT, U. WASHINGTON Conducted discussion sections for introductory Astronomy and Solar System courses.	9 courses, 2000 – 2005
<b>Service &amp; Outreach</b>	REFeree, ASTRONOMICAL JOURNAL Refereed research articles on low mass stars and brown dwarfs.	2003 – present
	SENATOR, GRADUATE AND PROFESSIONAL STUDENT SENATE Represented Astronomy graduate students in shared governance body.	2002 – 2005
	GEAR UP INSTRUCTOR Taught an introductory astronomy college-prep class for high-school students.	Summer 2004
	PROJECT ASTRO VOLUNTEER, VILLA ACADEMY Made monthly visits to three middle school science classes.	2002 – 2004
	ADVISORY COMMITTEE ON LICENSING, GPSS REPRESENTATIVE Monitored conduct of suppliers of products carrying University of Washington marks.	2002 – 2004
	TO FEED, TO FIX: DIVERSITY AND THE ASTRONOMY PIPELINE AT THE U.W. Co-wrote diversity plan for the U. Washington Department of Astronomy. <a href="http://www.astro.washington.edu/grad/Diversity_plan.pdf">http://www.astro.washington.edu/grad/Diversity_plan.pdf</a>	2002 – 2003
<b>Proposals &amp; Grants</b>	A PROPOSAL TO INCREASE UNDERREPRESENTED STUDENT PARTICIPATION IN ASTRONOMY: THE PRE-MAJOR IN ASTRONOMY PROGRAM (PRE-MAP) President's Diversity Appraisal Implementation Fund, U. Washington, \$21,700	March 2005
	DETERMINING THE PHYSICAL PROPERTIES OF HIGHLY EMBEDDED ACTIVELY ACCRETING PROTOSTARS AND PROTO-BROWN DWARFS NASA Graduate Student Researchers Program, \$75K	February 2003
	CO-I: INVESTIGATION OF THE FIELD STELLAR/SUBSTELLAR LUMINOSITY AND MASS FUNCTIONS P-I: Suzanne L. Hawley NASA Astrophysics Data Program, \$100K	July 2002
	PROFESSIONAL GROWTH FOR ASTRONOMY GRADUATE STUDENTS UW Student Technology Fee Fund, \$17K	February 2002

**References**     for this online cv please replace *username* in the email addresses below with the indicated usernames to combat LaTeX and PDF savvy spammers

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Department of Astronomy  
University of Washington  
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DR. THOMAS P. GREENE  
NASA Ames Research Center  
MS 245-6  
Moffett Field, CA 94035  
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PROFESSOR SCOTT ANDERSON  
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- First Author Refereed Publications** A LOW MASS STELLAR LUMINOSITY FUNCTION FROM CORRELATED SDSS AND 2MASS POINT SOURCE DETECTIONS: CALIBRATIONS AND INITIAL RESULTS  
Covey, K. R., Hawley, S. L., Bochanski, J. J., Munn, J. A., Reid, I. N., Rockosi, C. M., 2006, in prep.
- STELLAR SEDS FROM 0.3-2.5 $\mu$ : TRACING THE STELLAR LOCUS AND IDENTIFYING COLOR OUTLIERS IN SDSS AND 2MASS  
Covey, K. R., Ivezić, Ž., [16 authors], 2006, in prep.
- SEARCHING FOR PROTO-BROWN DWARFS: EXTENDING NEAR INFRARED SPECTROSCOPY BELOW THE HYDROGEN BURNING LIMIT  
Covey, K. R., Greene, T. P., Doppmann, G. W., Lada, C. J., 2005 *Astron. Nachr.*, submitted.
- THE RADIAL VELOCITY DISTRIBUTION OF CLASS I AND FLAT-SPECTRUM PROTOSTARS  
Covey, K. R., Greene, T. P., Doppmann, G. W., Lada, C. J., 2005 *AJ*, submitted.
- THE ANGULAR MOMENTUM CONTENT AND EVOLUTION OF CLASS I/FLAT SPECTRUM PROTOSTARS  
Covey, K. R., Greene, T. P., Doppmann, G. W., Lada, C. J., 2005 *AJ*, 129, 2765.
- A REINVESTIGATION OF THE POSSIBLE METALLICITY SPREAD IN NGC 3201  
Covey, K. R., Wallerstein, G., Gonzalez, G., Vanture, A. D., Suntzeff, N. B., 2003, *PASP* 115, 819.
- Other Refereed Publications** SPECTROSCOPIC SURVEY OF M DWARFS WITHIN 100 PARSECS OF THE SUN  
Hawley, S. L., Bochanski, J. J., Reid, I. N., Covey, K. R., West, A. A., Munn, J. A., Tinney, C. G., & Gizis, J. E., 2005, *AJ*, accepted, in press.
- THE PHYSICAL NATURES OF CLASS I AND FLAT-SPECTRUM PROTOSTELLAR PHOTOSPHERES: A NEAR-INFRARED SPECTROSCOPIC STUDY  
Doppmann, G. W., Greene, T. P., Covey, K. R., Lada, C. J., 2005, *AJ*, 130, 1145.
- THE UV, OPTICAL, AND IR PROPERTIES OF SDSS SOURCES DETECTED BY GALEX  
Agüeros, M., Ivezić, Ž., Covey, K. R., [18 authors], 2005, *AJ*, 130, 1022.
- THE THIRD DATA RELEASE OF THE SLOAN DIGITAL SKY SURVEY  
Abazajian, K., [22 authors], Covey, K. R., [130 authors], 2005 *AJ*, 129, 1755.
- SLOAN DIGITAL SKY SURVEY IMAGING OF LOW GALACTIC LATITUDE FIELDS: TECHNICAL SUMMARY AND DATA RELEASE  
Finkbeiner, D. P., [31 authors], Covey, K. R., [46 authors], 2004 *AJ*, 128, 2577.
- CATAclysmic VARIABLES FROM THE SLOAN DIGITAL SKY SURVEY. III. THE THIRD YEAR  
Szkody, P., [13 authors], Covey, K. R., [5 authors], 2004, *AJ* 128, 1882.
- MEETING THE COOL NEIGHBORS. VIII. A PRELIMINARY 20 PARSEC CENSUS FROM THE NLTT CATALOGUE  
Reid, I. N., Cruz, K. L., Allen, P., Mungall, F., Kilkenny, D., Liebert, J., Hawley, S. L., Fraser, O. J., Covey, K. R., Lowrance, P., Kirkpatrick, J. D., Burgasser, A.J. 2004 *AJ*, 128, 463.
- SPECTROSCOPIC PROPERTIES OF COOL STARS IN THE SDSS: AN ANALYSIS OF MAGNETIC ACTIVITY AND A SEARCH FOR SUBDWARFS  
West, A. A., Hawley, S. L., Walkowicz, L. M., Covey, K. R., Silvestri, N. M., Raymond, S. R., Harris, H. C., Munn, J. A., McGehee, P. M., Ivezić, Ž., & Brinkmann, J., 2004, *AJ*, 128, 426.
- MEETING THE COOL NEIGHBORS. VII. SPECTROSCOPY OF FAINT RED NLTT DWARFS  
Reid, I. N., Cruz, K. L., Allen, P., Mungall, F., Kilkenny, D., Liebert, J., Hawley, S. L., Fraser, O. J., Covey, K. R., Lowrance, P., 2003 *AJ*, 126, 3007.

THE FIRST DATA RELEASE OF THE SLOAN DIGITAL SKY SURVEY  
Abazajian, K., [25 authors], **Covey, K. R.**, [162 authors], 2003 *AJ*, 126, 2081.

CATAclysmic VARIABLES FROM THE SLOAN DIGITAL SKY SURVEY. II. THE SECOND YEAR  
Szkody, P., [11 authors], **Covey, K. R.**, [8 authors], 2003, *AJ* 126, 1499.

DISCOVERY OF A NEW NEARBY STAR  
Teegarden, B. J., Pravdo, S. H., Hicks, M., Lawrence, K., Shaklan, S. B., **Covey, K. R.**, Fraser, O., Hawley, S. L., McGlynn, T., Reid, I. N., 2003, *ApJ* 589, L51.

A FIRST LOOK AT WHITE DWARF-M DWARF PAIRS IN THE SLOAN DIGITAL SKY SURVEY  
Raymond, S. N., Szkody, P., Hawley, S. L., Anderson, S. F., Brinkmann, J., **Covey, K. R.**, McGehee, P. M., Schneider, D. P., West, A. A., York, D. G., 2003, *AJ* 125, 2621.

A SEARCH FOR  ${}^6\text{Li}$  IN STARS WITH PLANETS  
Reddy, B. E., Lambert, D. L., Laws, C., Gonzalez, G., **Covey, K. R.**, 2002, *MNRAS* 335, 1005.

CHARACTERIZATION OF M, L, AND T DWARFS IN THE SLOAN DIGITAL SKY SURVEY  
Hawley, S. L., **Covey, K. R.**, [30 authors], 2002, *AJ* 123, 3409.

PERIODIC PHOTOMETRIC VARIABILITY OF THE BROWN DWARF KELU-1  
Clarke, F. J., Tinney, C. G., **Covey, K. R.**, 2002, *MNRAS* 332, 361.

L DWARFS FOUND IN SLOAN DIGITAL SKY SURVEY COMMISSIONING DATA. II. HOBBY-  
EBERLY TELESCOPE OBSERVATIONS  
Schneider, D. P., Knapp, G. R., Hawley, S. L., **Covey, K. R.** [20 authors], 2002, *AJ* 123, 458.

THERMALLY DOMINATED CARBON MONOXIDE EMISSION IN THE TAURUS MOLECULAR CLOUD  
COMPLEX  
Ladd, E. F. & **Covey, K. R.** 2000, *ApJ* 536, 380.

**Unrefereed  
Conference  
Proceedings  
& Abstracts**

POSTER: ROTATIONAL AND RADIAL VELOCITIES OF CLASS I/FLAT SPECTRUM PROTOSTARS  
FROM HIGH RESOLUTION NIRSPEC SPECTRA  
**Covey, K. R.**, Greene, T. P., Doppmann, G. W., Lada, C. J., 2005, *AAS Meeting 205*, 136.02

POSTER: A SPECTROSCOPIC SURVEY OF LOW MASS STARS WITHIN 100 PARSECS OF THE  
SUN  
Bochanski, J. J., Hawley, S. L., Reid, I. N., **Covey, K. R.**, Munn, J. A., Tinney, C. G., 2005,  
*AAS Meeting 205*, 55.06

POSTER: SPECTROSCOPIC PROPERTIES OF COOL STARS IN THE SDSS  
Hawley, S. L., West, A. A., Walkowicz, L. M., **Covey, K. R.**, 2004, *AAS Meeting 204*, 03.07.

POSTER: NEAR-IR SPECTROSCOPY OF EMBEDDED PROTOSTARS REVEAL KEY PHYSICAL  
PROPERTIES  
Doppmann, G. W., Greene, T. P., **Covey, K. R.**, Lada, C. J., 2004, *AAS Meeting 203*, 94.12

POSTER: SPECTROSCOPIC CALIBRATIONS FOR THE SDSS/2MASS LOW MASS  
LUMINOSITY FUNCTION  
**Covey, K. R.**, Hawley, S. L., SDSS Collaboration, 2004, *AAS Meeting 203*, 43.01.

POSTER: NEW M AND L DWARFS IDENTIFIED IN THE SLOAN DIGITAL SKY SURVEY EARLY  
DATA RELEASE  
**Covey, K. R.**, Hawley, S. L., Knapp, G. R., Anderson, S. F., 2003, *Cool Stars 12*, 658.

POSTER: LOOKING FOR VERY LOW MASS PRE-MAIN SEQUENCE OBJECTS WITH SDSS  
McGehee, P. M., Hawley, S. L., **Covey, K. R.**, 2002, *Brown Dwarfs: Proceedings of IAU Sym-  
posium #211*, 525.

POSTER: MAGNETIC ACTIVITY IN LOW MASS STARS: SDSS RESULTS

West, A. A., Hawley, S. L., **Covey, K. R.**, Walkowicz, L. M., 2003, *IAU Symposium 219*, 232.

POSTER: THE SLOAN DIGITAL SKY SURVEY LOW MASS STAR & BROWN DWARF SAMPLE

**Covey, K. R.**, Hawley, S. L., Walkowicz, L. M., SDSS Collaboration, 2002, *BAAS*, 34, 1124.

CIRCULAR: GRB020531 OPTICAL OBSERVATIONS

Miceli, A., Lamb, D., Zucker, D., **Covey, K.**, Dembicky, J., Hastings, N. 2002, *GRBCN* 1416, 1.

POSTER: EXTRA SOLAR WEATHER? PERIODIC VARIABILITY IN THE BROWN DWARF KELU-1

Clarke, F., Tinney, C., **Covey, K. R.**, 2001, *Techniques for the detection of planets and life beyond the solar system*, 21.

POSTER: THE STRUCTURE OF DENSE GAS IN THE I04181 STAR FORMING REGION IN TAURUS

**Covey, K. R.**, Ladd, E. F., 1998, *BAAS*, 30, 1360.

**Informal  
Articles**

“NOT B”: OUR EXPERIENCE AT THE NATIONAL SOCIETY OF BLACK PHYSICISTS MEETING

Covey, K. R. & West, A. 2004 *Spectrum, Newsletter of the American Astronomical Society Committee on the Status of Minorities* , June 2004, p. 1-2, 11,17.