

# Curriculum Vitae

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## Education:

### **University of California, Los Angeles (UCLA):**

**Ph.D.;** Astronomy — 2002

Committee: J. L. Turner [Advisor], M. R. Morris, M. A. Jura, J. T. Wasson

Thesis: *Physical Properties of Giant Molecular Clouds in Nearby Starburst Galaxies*

**M.S.;** Astronomy — 1996

Advisor: J. L. Turner

Thesis: *Aperture Synthesis Study of CO in the Nucleus of IC 342*

### **California State University, Los Angeles (CSULA):**

**B.A.;** Physics — 1994

Advisor: M. B. Mijic

### **CUREA summer school: Mt. Wilson Institute:**

Advisor: J. Snider, Oberlin College — 1990

## Professional Experience:

### **New Mexico Tech (NMT):**

Assistant Professor — 2008-present

### **National Radio Astronomy Observatory (NRAO):**

Adjunct Assistant Astronomer — 2008-present

### **NRAO:**

Jansky Post-doctoral Fellowship — 2005-2008

### **University of Illinois, Urbana-Champaign (UIUC):**

BIMA/CARMA Post-doctoral Research Associate — 2002-2005

### **UCLA:**

Research Assistant/Associate — 1996-2001

### **University of Nevada, Las Vegas (UNLV):**

National Science Foundation (NSF) REU Research Assistant — 1993

### **CSULA:**

Physics Laboratory Assistant — 1993-1994

**Teaching Experience:****NMT:**

Assistant Professor — 2008 - present  
*General Physics I* (Phys121); [2 times]

**UIUC:**

Lecturer — 2005  
*Perspectives in Astronomy* (Astr100)

**UCLA:**

Teaching Assistant/Associate — 1996-2001  
*Intro. to the Physical Universe* (Ast2A,2B); [3 times each]  
*Nature of the Universe* (Ast3); [5 times]  
*Astronomy & the Media* (Ast7)  
 Miscellaneous Lectures (fill in basis) — 1997-2000  
*Radiative Transfer* (Ast117)  
*Stellar Systems & Cosmology* (Ast140)  
*Gaseous Nebulae* (Ast278)

**Miscellaneous:****Department/Community Service:****NMT:**

Physics Department Graduate Admissions Committee — 2009-present  
 Physics Department Computing Committee — 2008-present  
 Physics Department Demonstrations Committee — 2008-present  
 Physics Department General Physics Curriculum Committee — 2008-present

**NRAO:**

Local Organizing Committee: NRAO Summer REU program — 2006-2007  
 10th Synthesis Imaging Summer School - Tutor — 2006  
 Local Organizing Committee: NRAO Postdoctoral Fellows Symposium — 2006  
 NSF Astronomy Grant Reviewer — 2006

**UIUC:**

ALMA - Design Reference Science Plan contributor (§1.7.1-1.7.3) — 2003  
 LAI group Preprint Coordinator — 2003-2005  
 BIMA Array Statistician — 2002-2004  
 BIMA Array Operator — 2002-2004  
 BIMA Array Proposal Referee — 2002-2003

**UCLA:**

*Astronomical Journal* Referee — 2001  
 Math & Physical Science Council Graduate Student Representative — 1999-2001  
 Math & Physical Science Council Webmaster — 2000-2001  
 OVRO Array Operator — 1997-2001

**Professional Honors/Awards:****UIUC:**

NSF Grant AST-0506669 [PI] — 2005-2007

NASA Spitzer Grant [co-I]— 2005-2008

**UCLA:**

Physics &amp; Astronomy Alumni Alliance Outstanding Graduate Student — 2001-2002

Sigma Xi Grant — 1999-2000

**CSULA:**

Phi Kappa Phi Honor Society — 1992-1995

CSULA Alumni Outstanding Physics graduate — 1994

CSULA Larry Chu Scholarship, Physics — 1993-1994

**Professional Organizations:**

American Astronomical Society — 1998-present

Astronomical Society of the Pacific — 1997-present

Astronomical Chemical Society — 2006-present

American Association of Physics Teachers — 1993-1994

Society of Physics Students — 1993-1994

**Research Interests:**

Physical and chemical properties of molecular gas in galactic nuclei

Young starbursts/super star cluster formation

Molecular gas in dwarf galaxies

Interstellar prebiotic chemistry

**Students Advised:****Graduate:**

Keith Morris - New Mexico Tech (MS comm.) — 2008 - present

Jason Speights - New Mexico Tech (Ph.D comm.) — 2009 - present

Phil Cigan - New Mexico Tech (Ph.D comm.) — 2009 - present

**Undergraduate:**

Adam Ginsburg - Rice University — 2006

Diana Grijalva - New Mexico Tech — 2007

**References:**

Dr. Jean Turner

Professor of Physics &amp; Astronomy

Dept. of Physics &amp; Astronomy

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Dr. Lewis Snyder

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**Additional Contacts:**

- Dr. Sara C. Beck [Tel Aviv University]  
*sara@wise.tau.ac.il*
- Dr. Benjamin Zuckerman [UCLA]  
*ben@astro.ucla.edu*

**Publications:**

(**R:** *Refereed Publication*, **NR:** *Non-Refereed Publication*)

**R:** *First Views of A Nearby LIRG: Star Formation and Molecular Gas in IRAS 04296+2923*,  
Meier, D. S., Turner, J. L., Beck, S. C., Gorjian, V., Tsai, C.-W., & Van Dyk, S. D., 2009  
*Astronomical Journal*, submitted

**R:** *Locating the Youngest HII Regions in M 82 With 7 MM Continuum Maps*,  
Tsai, C.-W., Turner, J. L., Beck, S. C., Meier, D. S. & Ho, P. T. P. 2009 *Astronomical Journal*,  
137, 4655

**NR:** *The Localized Interplay Between Star Formation and Gas Chemistry in Nearby Starburst Galaxies*,

Meier, D. S., Turner, J. L., & Beck, S. C., C.-W. 2009 *The Evolving ISM in the Milky Way and Nearby Galaxies, The Fourth Spitzer Science Center Conference* Eds. K. Sheth, A. Noriega-Crespo, J. Ingalls & R. Paladini, Published online at <http://www.spitzer.caltech.edu/mtgs/ismevol/>

**NR:** *IRAS 04296+2923: A Nearby Luminous Infrared Galaxy in Hiding*,  
Meier, D. S., Turner, J. L., Beck, S. C., Gorjian, V., Tsai, C.-W., & Van Dyk, S. D., 2009 *Bulletin of the American Astronomical Society*, 213, 445.03

**R:** *Self-Regulated Fueling of Galaxy Centers: Evidence for Star Formation Feed-back in IC 342's Nucleus*,

Schinnerer, E., Böker, T., Meier, D. S. & Calzetti, D. 2008, *Astrophysical Journal Letters*, 684, L21

**R:** *Detection of Interstellar Cyanformaldehyde (CNCHO)*,

Remijan, A. J., Hollis, J. M., Lovas, F. J., Stork, W. D., Jewell, P. R., & Meier, D. S., 2008, *Astrophysical Journal Letters*, 675, L85

**R:** *Gas and Dust Associated with the Strange, Isolated, Star BP Piscium*,

Zuckerman, B., Melis, C., Song, I., Meier, D. S., Perrin, M. D., Macintosh, B., Marois, C., Weinberger, A. J., Rhee, J. H., Graham, J. R., Kastner, J. H., Palmer, P. Forveille, T., Becklin, E. E., Wilner, D. J., Barman, T. S., Marcy, G. W. & Bessell, M. S. 2008, *Astrophysical Journal*, 683, 1085

**R:** *Nuclear Bar Catalyzed Star Formation:  $^{13}\text{CO}$ ,  $\text{C}^{18}\text{O}$  and Molecular Gas Properties in the Nucleus of Maffei 2*,

Meier, D. S., Turner, J. L. & Hurt, R. L. 2008, *Astrophysical Journal*, 675, 281

**R:** *Chemical Complexity in Galaxies*,

Turner, J. L. & Meier, D. S., 2008, *Astrophysics & Space Sciences*, 313, 267

**NR:** *M 82 at 7 mm*,

Tsai, C.-W., Turner, J. L., Beck, S. C., **Meier, D. S.** & Ho, P. T. P., 2007 *Bulletin of the American Astronomical Society*, 211, 141.03

**R:** *The Nature of the Densest Gas in IC 342,*

**Meier, D. S.** & Turner, J. L. 2007, *Astrophysical Journal Letters*, submitted

**R:** *Brackett Lines from the Super Star Cluster Nebulae in He 2-10,*

Henry, A. L., Turner, J. L., Beck, S. C., Crosthwaite, L. P. & **Meier, D. S.**, 2007, *Astronomical Journal*, 133, 757

**NR:** *The Nature of the Densest Gas in Nearby Starbursts,*

**Meier, D. S.** & Turner, J. L. 2006, *Bulletin of the American Astronomical Society*, 209, 217.02

**R:** *Subarcsecond-Resolution Radio Maps of Nearby Spiral Galaxies,*

Tsai, C.-W., Turner, J. L., Beck, S. C., Crosthwaite, L. P., Ho, P. T. P. & **Meier, D. S.**, 2006, *Astronomical Journal*, 132, 2383

**NR:** *High Resolution Radio Maps of Four Nearby Spiral Galaxies,*

Tsai, C.-W., Turner, J. L., Beck, S. C., Crosthwaite, L. P., Ho, P. T. P. & **Meier, D. S.**, 2006, EAYAM, —

**NR:** *Molecules in External Galaxies,*

**Meier, D. S.**, 2006, *Abstract of the American Chemical Society*, A402, 532

**R:** *A Survey of Large Molecules Towards the Protoplanetary Nebula CRL 618,*

Remijan, A., Wyrowski, F., Friedel, D. N., **Meier, D. S.**, & Snyder, L. E., 2005, *Astrophysical Journal*, 626, 233

**NR:** *A Survey of Large Molecules Towards the Protoplanetary Nebula CRL 618,*

Remijan, A., Wyrowski, F., Friedel, D. N., **Meier, D. S.**, & Snyder, L. E., 2005, 60th Ohio State University International Symposium on Molecular Spectroscopy, 2005, FA10

**NR:** *Brackett Gamma Imaging of the Nucleus of M 83,*

Crosthwaite, L. P., Turner, J. L., Beck, S. C. & **Meier, D. S.**, 2005, *Bulletin of the American Astronomical Society*, 205, 2610

**NR:** *The Chemical Anatomy of Nuclei of Nearby Barred Spiral Galaxies,*

**Meier, D. S.** & Turner, J. L. 2005, *Bulletin of the American Astronomical Society*, 205, 9909

**R:** *Spatially Resolved Chemistry in Nearby Galaxies I. The Center of IC 342,*

**Meier, D. S.** & Turner, J. L., 2005, *Astrophysical Journal*, 618, 259

**NR:** *Fueling Nuclear Star Clusters: Gas Dynamics in the Central 100pc,*

Schinnerer, E., Böker, T., **Meier, D.S.**, Lisenfeld, U., & Emsellem, E., 2004, in "The Evolution of

Starbursts”, eds. S. Hüttemeister, E. Manthey, Bad Honnef, Germany, AIPC, 783, 209

**NR:** *Hot Gas in the Nuclear Region of IC 342,*

Montero-Castano, M., Ho, P. T. P., Tsai, C.-W., **Meier, D. S.** & Turner, J. L. 2004, JENAM, —

**R:** *A Survey of Large Molecules of Biological Interest Towards Selected High Mass Star Forming Regions,*

Remijan, A., Shiao, Y.-S., Friedel, D. N., **Meier, D. S.**, & Snyder, L. E., 2004, *Astrophysical Journal*, 617, 384

**NR:** *Chemical Differentiation in Nearby Starburst Nuclei,*

**Meier, D. S.** & Turner, J. L. 59th Ohio State University International Symposium on Molecular Spectroscopy, 2004, RD08, 214

**R:** *Dynamically Influenced Molecular Clouds in the Nucleus of NGC 6946: Variations in the CO Isotopic Line Ratios,*

**Meier, D. S.** & Turner, J. L., 2004, *Astronomical Journal*, 127, 2069

**NR:** *The Morphology of Simple Molecules in the Nucleus of Nearby Galaxies,*

**Meier, D. S.** & Turner, J. L. 58th Ohio State University International Symposium on Molecular Spectroscopy, 2003, WE03, 129

**R:** *An Extragalactic Supernebula Confined by Gravity,*

Turner, J. L., Beck, S. C., Crosthwaite, L. P., Larkin, J. E., McLean, I. S. & **Meier, D. S.** 2003, *Nature*, 423, 621

**R:** *Molecular Gas and the Nuclear Star Cluster in IC342: Sufficient Fueling for Recurring Star Formation Events?,*

Schinnerer, E., Böker, T. & **Meier, D. S.** 2003, *Astrophysical Journal Letters*, 591, L115

**NR:** *Molecules in the Nearby Starburst Galaxy, IC 342,*

**Meier, D. S.**, & Turner, J. L. 2003, in: C. L. Curry, & M. Fich (eds.), *Chemistry as a Diagnostic of Star Formation*, (Ottawa: NRC-C), 360

**R:** *Radio-Infrared Supernebulae in II Zw 40,*

Beck, S. C., Turner, J. L., Langland-Shula, L. E., **Meier, D. S.**, Crosthwaite, L. P. & Gorjian, V. 2002, *Astronomical Journal*, 124, 2516

**R:** *The Molecular Gas Morphology of the Young Starburst NGC 5253 Revisited,*

**Meier, D. S.**, Turner, J. L. & Beck, S. C. 2002, *Astronomical Journal*, 124, 877

**R:** *Physical Properties of Giant Molecular Clouds in Nearby Starburst Galaxies,*

**Meier, D. S.** 2002, *Publications of the Astronomical Society of the Pacific*, 114, 795

**R:** *Physical Properties of Giant Molecular Clouds in Nearby Starburst Galaxies*,  
**Meier, D. S.**, 2002, Ph.D. thesis, University of California, Los Angeles

**NR:** *Dust and Gas Clouds and the Starburst in NGC 5253*,  
 Turner, J. L., Crosthwaite, L. P., **Meier, D. S.**, Kovacs, A., Benford, D. J. & Beck, S. C. 2002,  
*Bulletin of the American Astronomical Society*, 201, 116.16

**R:** *Molecular Gas and Star Formation in NGC 3077*  
**Meier, D. S.**, Turner, J. L. & Beck, S. C. 2001, *Astronomical Journal*, 122, 1770

**NR:** *The Puzzle of the Narrow Brackett Lines in Super Star Cluster Nebulae*,  
 Turner, J. L., Crosthwaite, L. P., Beck, S. C. & **Meier, D. S.** 2001, *Bulletin of the American  
 Astronomical Society*, 199, 96.09

**NR:** *NIRSPEC Observations of Brackett Lines in the Dwarf Starburst Galaxy NGC 5253*,  
 Turner, J. L., Crosthwaite, L. P., **Meier, D. S.** & Beck, S. C. 2001, *Bulletin of the American  
 Astronomical Society*, 198, 09.05

**NR:** *Near Infrared Imaging of the Young Super Star Cluster in NGC 5253*,  
 Turner, J. L., Beck, S. C., Crosthwaite, L. P. & **Meier, D. S.** 2001, *Bulletin of the American  
 Astronomical Society*, 197, 79.16

**NR:** *Molecules in IC 342: Resolved Chemistry in a Galactic Nucleus*,  
**Meier, D. S.** & Turner, J. L. 2001, *Bulletin of the American Astronomical Society*, 197, 38.14

**R:** *Molecular Gas and Star Formation in IC 342:  $C^{18}O$  and 1.3 Millimeter Continuum Observations*,  
**Meier, D. S.** & Turner, J. L. 2001, *Astrophysical Journal*, 551, 687

**R:** *Warm Molecular Gas in Dwarf Starburst Galaxies: CO(3-2) Observations*,  
**Meier, D. S.**, Turner, J. L., Crosthwaite, L. P. & Beck, S. C., 2001, *Astronomical Journal*, 121, 740

**R:** *Molecular Gas in the Starburst Nucleus of IC 342: High Resolution  $^{13}CO(2-1)$  Imaging*,  
**Meier, D. S.**, Turner, J. L. & Hurt, R. L. 2000, *Astrophysical Journal*, 531, 200

**NR:** *Molecular Clouds in the Nucleus of IC342: CO Isotope Observations*,  
**Meier, D. S.**, Turner, J. L. & Hurt, R. L. 1998, *Bulletin of the American Astronomical Society*,  
 192, 69.01

**NR:** *Neutral Carbon in the Nucleus of IC 342*,  
 Crosthwaite, L. P., **Meier, D. S.**, Turner, J. L. & Benford, D. J. 1998, *Bulletin of the American  
 Astronomical Society*, 192, 69.02

**NR:** *High Resolution Observations of Molecular Gas in Dwarf Starbursts*,

**Meier, D. S.**, Turner, J. L. & Beck, S. C. 1998, in: K.A. van der Hucht, G. Koenigsberger & P.R.J. Eenens (eds.), *Wolf-Rayet Phenomena in Massive Stars and Starburst Galaxies*, Proc. IAU Symp. No. 193 (San Francisco: ASP), 747

**NR:** *Imaging CO(2-1) in NGC 5253 and Henize 2-10*,

**Meier, D. S.**, Turner, J. L. & Beck, S. C. 1997, *IAUJD*, 2, 40