

DR. CARL MELIS

CURRICULUM VITAE

Center for Astrophysics and Space Sciences
University of California, San Diego, CASS 0424
9500 Gilman Drive
La Jolla, CA 92093-0424

Tel: 1 (858) 534-6627
Fax: 1 (858) 534-0177
cmelis@ucsd.edu
<http://cass.ucsd.edu/~cmelis/>

Current Position Associate Research Scientist – Step III

Research Interests i) The formation, evolution, ultimate fate, and composition of rocky bodies in planetary systems (terrestrial-like planets, dwarf-planets, planetesimals, etc). ii) Space exploration through novel means. iii) Ultra-precise astrometry as afforded by very-long baseline radio interferometry and its application in studying the physics of stars, the star formation process, and planetary systems.

Professional Preparation UCSD Rady School of Management micro-MBA program, 2015
Ph.D. Astronomy, University of California, Los Angeles, 2009
Thesis title: “*The Life, Death, and Composition of Exoterrestrial Planets around Intermediate Mass Stars*”
Advisor: Prof. Emeritus B. Zuckerman
M.S. Astronomy, University of California, Los Angeles, 2007
B.S. Physics and Mathematics-Applied Sciences, UC San Diego, 2005

Appointments NSF AAPF Fellow, UC San Diego, 2010-2013
CASS Postdoctoral Fellow, UC San Diego, 2009-2013
Spitzer Visiting Graduate Student Fellow, Spitzer Science Center, 2008
Research Assistant, UC San Diego, 2003-2005

Teaching, Outreach, and Diversity UCSD Chancellor’s Committee on the Status of Women, 2016-2018
High Tech High School Shadow and Internship Mentor, 2012-2015
Observational Astronomy Research Lab, UCSD, Winter 2013 and 2014
ASTR 101L Instructor, MiraCosta College, Fall 2011 and Spring 2012
UCLA Planetarium and Telescope Coordinator, 2006-2008
Teaching Assistant, UC Los Angeles, 2006-2008

Major Funding

- PI, XMM-Newton program 084315 (117ks total)
- PI, NSF SPG Grant AST-1826583, 2018-2021 (\$503,145 total)
- PI, NASA-ADAP Grant 18-ADAP18-0233 (\$162,152 total)
- PI, Hubble Space Telescope programs (several, including DD)
- PI, Stratospheric Observatory For Infrared Astronomy (SOFIA) programs
- PI, NASA-ADAP Grant 13-ADAP13-0178, 2014-2016 (\$337,799 total)
- PI, NSF AAG Grant AST-1313428, 2013-2016 (\$470,157 total)
- PI, Chandra X-ray Observatory program 15200550
- PI, Herschel Space Telescope programs (OT1_cmelis_1, OT2_cmelis_3)
- NSF Astronomy and Astrophysics Postdoctoral Fellowship, 2010-2013
- UCSD CASS Postdoctoral Fellowship, 2009-2010
- Lawrence Livermore National Labs Minigrant, 2009
- Spitzer Visiting Graduate Student Program Fellowship, 2008
- Regent's Scholarship UC Los Angeles, 2005-2006
- Chancellor's Undergraduate Research Scholarship UC San Diego, 2004

Awards

- Scialog Fellow, 2019
- Chandra* Cool Attitude Targets (CAT) selection (arXiv:1903.01547), 2019
- UCSD Chancellor's Postdoctoral Scholar Award, 2013
- PI, VLBA Key Science Project, 2010-2015
(https://science.nrao.edu/science/key-science-projects/ksp_pdcontroversy)
- Boy Scouts of America Eagle Award, 2001

Research Talks, Colloquia, and Seminars

1. Contribution: 05/2019 — Scialog Conference: Time Domain Astrophysics, Tucson, AZ
2. Contribution: 06/2018 — Astrophysical Frontiers in the Next Decade and Beyond, Portland, OR
3. Contributed Talk: 06/2016 — American Astronomical Society, San Diego, CA
4. Invited Talk: 11/2015 — Osher Lifelong Learning Institute, La Jolla, CA
5. Contributed Talk: 06/2015 — Thirty Meter Telescope Science Forum Exoplanet Session, Washington, DC
6. Colloquium: 05/2015 — Carnegie Observatories, Pasadena, CA
7. Invited Talk: 05/2015 — International Astronomical Union Symposium 314, Atlanta, GA
8. Invited Talk: 03/2015 — ALMA Community Day, La Jolla, CA
9. Contributed Talk: 01/2015 — American Astronomical Society, Seattle, WA

10. Colloquium: 11/2014 — Sonoma State University Physics and Astronomy, Rohnert Park, CA
11. Invited Speaker: 06/2014 – Graduate Career Consortium National Conference, La Jolla, CA
12. Colloquium: 04/2014 - Centro de Radioastronomía y Astrofísica, UNAM, Morelia, Mexico
13. Contributed Talk: 02/2014 - UCSD Strategic Research Workshop, La Jolla, CA
14. Invited Speaker: 12/2013 - Prof. Ben Zuckerman's 70th Birthday Symposium, Los Angeles, CA
15. Invited Speaker: 10/2013 - Arecibo 50th Anniversary Science Symposium, Arecibo Observatory, Puerto Rico
16. Seminar: 09/2013 - Earth Section Geosciences Seminar - Scripps Institution of Oceanography, La Jolla, CA
17. Invited Speaker: 06/2013 - Gordon Research Conference: Origins of Solar Systems, MA
18. Colloquium: 06/2013 - UC Irvine Astrophysics, Irvine, CA
19. Seminar: 04/2013 - Scripps Institute of Oceanography Cosmochemistry Group, La Jolla, CA
20. Colloquium: 04/2013 - UC San Diego CASS, La Jolla, CA
21. Seminar: 02/2013 - John Hopkins University Center for Astrophysical Sciences, Baltimore, MD
22. Invited Talk: 01/2013 - American Astronomical Society, Long Beach, CA
23. Seminar: 12/2012 - UC Berkeley Astronomy Department, Berkeley, CA
24. Colloquium: 10/2012 - University of Montreal Department of Astrophysics, Montréal, Canada
25. Colloquium: 10/2012 - Southwest Research Institute, Boulder, CO
26. Seminar: 10/2012 - ISM, Star and Planet Formation Series, Steward Observatory, Tucson, AZ
27. Seminar: 10/2012 - University of Washington Department of Astronomy, Seattle, WA
28. Seminar: 10/2012 - UC Santa Barbara Astrophysics Journal Club, Santa Barbara, CA
29. Contributed Talk: 10/2012 - Radio Stars and Their Lives in the Galaxy, MIT Haystack Observatory
30. Seminar: 09/2012 - UC Santa Cruz Astronomy FLASH, Santa Cruz, CA
31. Colloquium: 09/2012 - University of Wyoming Department of Physics and Astronomy, Laramie, WY
32. Colloquium: 09/2012 - Arizona State University Department of Physics and Astronomy, Tempe, AZ
33. Contributed Talk: 08/2012 - International Astronomical Union Symposium 293, Beijing, China
34. Invited Speaker: 08/2012 - International Astronomical Union Symposium 289, Beijing,

China

35. Contributed Talk: 07/2012 - Gemini Science Meeting, San Francisco, CA
36. Seminar: 06/2012 - Caltech Astronomy Department, Pasadena, CA
37. Contributed Talk: 01/2012 - American Astronomical Society, Austin, TX
38. Seminar: 09/2011 - UC San Diego CASS Journal Club, La Jolla, CA
39. Colloquium: 07/2011 - Mt. Stromlo Observatory, Australian National University, Canberra, Australia
40. Invited Speaker: 01/2011 - The Future of the VLBA Conference, Charlottesville, VA
41. Contributed Talk: 01/2011 - American Astronomical Society, Seattle, WA
42. Colloquium: 09/2010 - San Diego State University Astronomy Department, San Diego, CA
43. Colloquium: 01/2010 - UC San Diego CASS, La Jolla, CA
44. Dissertation Talk: 01/2010 - American Astronomical Society, Washington, DC
45. Invited Speaker: 09/2009 - Keck Science Meeting 2009, Caltech, Pasadena, CA
46. Seminar: 09/2009 - Gemini-South Observatory, La Serena, Chile
47. Invited Speaker: 05/2009 - EVLA:Stars Conference, Socorro, NM
48. Contributed Talk: 01/2009 - American Astronomical Society, Long Beach, CA
49. Seminar: 12/2008 - Infrared Processing and Analysis Center, Pasadena, CA
50. Colloquium: 11/2008 - UC San Diego CASS, La Jolla, CA
51. Seminar: 10/2008 - UCLA Earth and Space Sciences Department, Los Angeles, CA
52. Seminar: 09/2008 - Association of Universities for Research in Astronomy, La Serena, Chile
53. Seminar: 09/2008 - European Southern Observatory, Vitacura, Santiago, Chile
54. Seminar: 05/2008 - Jet Propulsion Laboratory, La Cañada, CA
55. Seminar: 02/2008 - UCLA Astrophysics Journal Club, Los Angeles, CA
56. Contributed Talk: 01/2008 - American Astronomical Society, Austin, TX
57. Seminar: 09/2007 - National Radio Astronomy Observatory, Socorro, NM
58. Seminar: 06/2007 - UCLA Astrophysics Journal Club, Los Angeles, CA
59. Contributed Talk: 01/2007 - American Astronomical Society, Seattle, WA

Contract/Grant Proposal Review

Hubble Space Telescope Time Allocation Committee Member, 2014, 2016, 2018, 2019

NASA Origins of Solar Systems external reviewer: 2011, 2013

NRAO Telescope Allocation Committee SRP Member, 2013-2015

Vernieuwingsimpuls (Netherlands Organisation for Scientific Research) Innovational Research

Incentives Scheme Grant external reviewer, 2016

NSF Grant Review, 2018

Journal Referee

Astronomy & Astrophysics: 2014

AAS Journals (ApJ, AJ): 2011, 2014, 2016, 2017, 2018, 2019

Monthly Notices of the Royal Astronomical Society: 2012, 2016, 2017

Publications of the Astronomical Society of Japan: 2014

Science: 2014, 2015

Professional Committee Service

Organizer: AAS Special Session January 2013 - Dusty Debris in the Terrestrial Planet Zone I and II

Local Organizing Committee: UCSD ALMA Community Day 2015

Program Committee Member: SPIE Optics and Photonics 2016 - Nanophotonics and Macrophotonics for Space Environments

Member: Arecibo Observatory Users Committee, 2018-2019

Service to New Telescope Projects

Member of the TMT Exoplanet International Science Definition Team 2014-present

Contributor to the 2015 Thirty Meter Telescope Detailed Science Case (arXiv:1505.01195)

ngVLA Astrometry Community Study and science case/design development, 2018-2019

(ngVLA Memo #58; 2020 Decadal Survey Whitepapers)

MaunaKea Spectroscopic Explorer Exoplanets and Stellar Astrophysics Science Working Group member and contributor to science case (arXiv:1904.04907), 2018-2019

Contributor to US ELT Key Science Projects and Exoplanet Decadal Survey Whitepapers, 2018-2019

LIST OF REFERENCES

Prof. Benjamin Zuckerman

ben@astro.ucla.edu

Prof. Adam J. Burgasser

aburgasser@ucsd.edu

Dr. Mark J. Reid - Senior Research Astronomer

reid@cfa.harvard.edu