ELIJAH LANGDON QUETIN

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EDUCATION

University of California, Santa Barbara. Doctoral Candidate, Physics. PhD expected 2016. California Institute of Technology. M.S., Astrophysics. 2008.

Universität-Göttingen. Visiting Student Researcher. 2005 – 2006.

University of California, Santa Barbara – College of Creative Studies. B.S., Physics. 2005.

Palma High School College Prep. Salinas, CA. High School Diploma. 2000.

TEACHING EMPLOYMENT

Pomona College (2015 - present)

Claremont, CA

Visiting Faculty: Introductory Astronomy, Spacetime-Quanta-Entropy Lab

Santa Barbara City College (2012 - 2015)

Santa Barbara, CA

Adjunct Faculty: Introductory Astronomy, Observational Astronomy Lab

University of California, Santa Barbara (2008 - 2013)

Santa Barbara, CA

Lecturer: Introduction to Astronomy, Mathematical Methods of Theoretical Physics,

Intermediate Classical Mechanics

Teaching Assistant: Introduction to Astronomy, Introductory Physics and Labs (Physical Sciences/Engineering), Introductory Physics and Labs (Biological Sciences), Extragalactic Astrophysics, Origins: A Dialogue Between Sciences and Humanities

School for Scientific Thought (pre-college program): Great Discoveries in Astronomy

California Institute of Technology (2007)

Pasadena, CA

Teaching Assistant: Galaxies and Cosmology.

Educational Outreach Coordinator. Outward Bound LA Collaboration, NOVA. 2007.

RESEARCH EMPLOYMENT

University of California, Santa Barbara (2003 - 2004, 2008 - present) Santa Barbara, CA PhD-thesis Research with Prof. Robert Antonucci. Testing theories of galaxy formation/ evolution and galactic nuclei, probing Hubble Space Telescope archive for tidal disruptions of stars by super-massive black holes.

Research Assistant with Prof. Philip Lubin. Experimental cosmology, leading telescope system design and construction, astronomical site testing at White Mountain Research Station.

Max-Planck-Institut für Radioastronomie (2008, 2009, 2010, 2012) *Bonn, Germany* Visiting Scientist with Prof. Dr. Gerd Weigelt and Dr. Makoto Kishimoto. Collaboration on active galaxies. 2008, 2009, 2010, 2012.

NASA/Jet Propulsion Laboratory (2007 - 2008)

Pasadena, CA

Research Assistant with Prof. Anthony Readhead. Collaboration with Jet Propulsion Laboratory to install two 6-meter telescopes at Owens Valley Radio Observatory for observations of cosmic microwave foregrounds (C-BASS project).

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California Institute of Technology (2006 - 2007)

Pasadena, CA

Research Assistant with Prof. Richard Ellis and Prof. Andrew Benson. Extragalactic astrophysics, galaxy formation and evolution, corroborating Millennium Simulation results with Palomar observations, observing with 10-meter Keck Telescopes.

Universität-Göttingen (2005 - 2006)

Göttingen, Germany

Visiting Scientist with Prof. Dr. Wolfram Kollatschny. Active galaxies, co-investigator on Hubble Space Telescope Archival Research Grant.

Los Alamos National Laboratory (2004)

Los Alamos, NM

Fellowship/Intern with Dr. Tom Vestrand. Experimental astronomy, gamma-ray bursts, robotic telescopes.

W. H. Freeman Publishers (2012)

Editing Contractor. Reviewing, editing, and writing multimedia content for Freedman, Geller, Kaufman, *Universe*, 9th edition and the book companion website.

Pearson – Addison-Wesley Publishing (2003)

Editing Contractor. Testing and revising *Mastering Physics* course software for Young and Freedman, *University Physics*, 11th Edition.

PUBLICATIONS

P.J. Marshall et al., "Low-Energy Astrophysics: Stimulating Reduction in Energy Consumption in the Next Decade" Astronomy & Astrophysics Decadal Survey, White Paper, 2010

M. J. Stringer, A. J. Benson, K. Bundy, R. S. Ellis, E. L. Quetin, "Mock observations with the Millennium simulation: cosmological downsizing and intermediate-redshift observations" Mon. Not. R. Astron. Soc, Volume 393, Issue 4, pp. 1127-1140. June 2008

Quetin, E. L. "Weathering the Storm: Opportunity and Curiosity on Mars" Engineering & Science Magazine. Volume LXX, No. 3., Caltech/JPL. Douglas Smith, Editor. Pasadena, CA. 2007

Marvil, J. et al., "An Astronomical Site Survey of the Barcroft Facility at the White Mountain Research Station" New Astronomy. 11: 218-225, 2006

Quetin, E. L. "Design and Development of the Transient Optical Sky Survey Project" Proceedings of the National Conference on Undergraduate Research, 2004. Indiana University/Purdue University. Indianapolis, Indiana. Robert D. Yearout, Editor in Chief. April 15-17, 2004

Quetin, E. L. "Flares from Tidal Disruptions of Stars by Supermassive Galactic Black Holes" Proceedings of the National Conference on Undergraduate Research, 2004. University of Utah. Salt Lake City, Utah. Robert D. Yearout, Editor in Chief. March 13-15, 2003

COMMITTEES AND PANELS

Academic Senate Outstanding Teaching Award Decision Committee, UCSB Panel for the Advancement of the Humanities, UCSB

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HONORS AND AWARDS

Outstanding Teaching Assistant Award, UC Santa Barbara Academic Senate Greenstein Fellowship, Caltech Astronomy Department Arnold Nordsieck Award, UC Santa Barbara Physics Department CARE Fellowship, Los Alamos National Laboratory Summer Undergraduate Research Fellowship, College of Creative Studies Highest Academic Honors, UC Santa Barbara Physics Department Research Award, UC Santa Barbara Physics Department Academic Excellence Award, UC Santa Barbara Residence Halls Outstanding Student, UC Santa Barbara Department of French and Italian Graduated 1 of 128 from Palma High School College Preparatory

SELECTED INVITED TALKS AND LECTURES

- "Black Holes and the Science of *Interstellar*" (with Andrea Puhm) SBCC Humanities Building; Santa Barbara, CA; Phi Theta Kappa/SBCC Astronomy Club; Nov. 19, 2014
- "The Art of Astronomy" Indigo Hotel; Santa Barbara, CA; Museum of Contemporary Art Exhibition: *The Vastness is Bearable*; Oct. 11, 2014
- "The Antikythera Mechanism" Santa Barbara Museum of Natural History; Santa Barbara, CA; SBAU Speaker Series, Oct. 3, 2014
- "The parallel histories of Music and Astronomy" Santa Barbara Museum of Natural History; Santa Barbara, CA; SBAU Speaker Series, Apr. 5, 2013
- "Towards detections of tidal disruptions of stars by supermassive black holes" Broida Hall, UCSB; Friday Lunch Talk; Feb. 8, 2013
- "A software pipeline to probe the time-domain of the HST archive" Max-Planck-Institut für Radioastronomie; Bonn, Germany; Seminar, Sept. 2, 2009

FOREIGN LANGUAGES

German (fluent), French (conversational), Latin/Greek (basic reading)

TECHNICAL SKILLS

Technical drawing and machining, AutoCAD, Code V, *LaTeX* typesetting, Basic Electronics, Windows, Mac, Linux, IDL programming language, Sailing and Scuba Certifications, Woodworking

Astronomical observations: Keck 10-m telescope, Hubble Space Telescope, OVRO 40-meter radio telescope and Palomar 200-inch telescope, Celestron 11" and 5" telescopes, Planetarium *Digistar* programming and operation

PERFORMANCE PIANO STUDY

Prof. Charles Asche (UC Santa Barbara), Prof. Eduardo Delgado (Pasadena/CSU Fullerton), Julia Bartha (Göttingen)

Concerts and Lecture Recitals in California, Kansas, Washington DC, Germany and Austria

OTHER AREAS OF INTEREST

Philosophy, Poetry, Literature, Writing, Mountains, Ocean, Gardening, Cooking

References available upon request