

# CURRICULUM VITAE

## Christopher Gabler

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### Education

M.S. in Astronomy, San Diego State University  
M.S. in Electrical & Computer Engineering, University of California, Santa Barbara  
B.S. in Chemical Engineering, cum laude, California State Polytechnic University, Pomona

### Teaching Experience

*Adjunct Professor of Physics and Engineering,*  
Point Loma Nazarene University –

- Introduction to Engineering, Lab - EGR1012, 1012L 2019 – current
- Analog Electronics, Lecture and Lab - EGR 3053, EGR 3053L “
- General Physics Lab – PHY1044L, 141L, 142L 2018 – current
- Descriptive Astronomy – PSC 105 2019
- Computer Interfacing with Lab – EGR 432, 432L “
- Introduction to Engineering with Lab – EGR 122, 122L “
- Mobile Robotics with Lab – EGR 442, 442L “

*Associate Faculty Astronomy,*  
MiraCosta College -

- Descriptive Astronomy – ASTR 101 2019 – current
- Principles of Physics I - PHYS 151, 151L 2019
- Principles of Physics II - PHYS 152, 152L 2018
- Descriptive Astronomy Lab – ASTR 101L 2017 – current

*Adjunct Professor of Science and Engineering,*  
Cuyamaca College –

- Electric Circuits – ENGR 210 2019
- Digital Design Electronics with Lab – ENGR 270 2018
- Descriptive Astronomy – ASTR 110 “
- General Astronomy Lab – ASTR 112L “

*Science Teacher*

Bayfront Charter High School - 2018

- Principles of Physics 549 A, B
- Astronomy 549 A, B

*Visiting Assistant Professor of Physics and Engineering,*  
Point Loma Nazarene University –

2015 - 2017

- Computational Methods for Engineers & Scientists, MATLAB I & II – EGR 110/120
- Engineering Mechanics - EGR 215
- Mechanics of Materials – EGR 265
- Analog Electronics, Lecture and Lab - EGR 352, EGR 352L
- Digital Electronics, Lecture and Lab – EGR 442, 422L
- Computer Interfacing and Lab - EGR 432, 432L
- Mobile Robotics and Lab – EGR 442, 442L
- Physics - Physical Science Lecture and Lab – PSC 110, PSC 110L
- University (calculus-based) Physics Lab – PHY 242L
- Classical Mechanics/Dynamics – PHY 341
- General Physics Lab – PHY 141L, 142L
- The Cosmos: Descriptive Astronomy Lecture – PSC 105

*Adjunct Professor of Astronomy*  
San Diego Miramar College

2015

- Descriptive Astronomy Lecture – ASTR 101

*Adjunct Professor of Astronomy*  
Southwestern Community College

- Introduction to Astronomy Lecture – ASTR 100 2016
- Introduction to Astronomy Lecture, Lab – ASTR 100, 109 2012 - 2015
- Principles of Physics Lab, Mechanics I – PHYS 271 2013
- Principles of Physics Lab, Electromagnetics II – PHYS 273 “

*Lead Teaching Associate/Supervisor*  
San Diego State University

2011-2012

- Introduction to Astronomy Lab – ASTR 109

## **Research/Field Experience**

*Research Assistant*

SDSU Research Foundation, San Diego, CA

2011-2014

- Research work on analytical studies on the evolution of stars in open (galactic) clusters with observational data from NGC 6819 *Kepler Mission* data. Used mathematical modeling, computational physics, and data analysis and error estimation, with Linux/UNIX, IDL, Fortran 77/90 tools.
- Evolutionary studies on the Praesepe open cluster (NGC 2632) and the astrophysics of Ultra-Cool White Dwarfs, using IRAF tools (Image Reduction and Analysis Facility) for image manipulation.

## **Research Publications**

- Thesis (M.S. Astronomy, SDSU) Advisor: Dr. Eric Sandquist  
“The Initial-Final Mass Relation of White Dwarfs in Old Open Clusters”  
[http://astronomy.sdsu.edu/wp-content/uploads/2016/02/20141204\\_gabler.pdf](http://astronomy.sdsu.edu/wp-content/uploads/2016/02/20141204_gabler.pdf)

A theoretical study on the relationship between the initial stellar mass and the final white dwarf stellar mass of open cluster NGC 6819. Isochrones are used in conjunction with asteroseismic data, and data of evolving binary stars near the color-magnitude diagram main-sequence turn-off point are used in this study.

- Thesis (M.S. Electrical & Computer Engineering, UCSB)  
“Color Edge Detection for IC Inspection”  
[https://books.google.com/books/about/Color\\_Edge\\_Detection\\_for\\_IC\\_Inspection.html?id=8mgvHAAACAAJ](https://books.google.com/books/about/Color_Edge_Detection_for_IC_Inspection.html?id=8mgvHAAACAAJ)  
The development of software programs in Color Edge Detection algorithms for the visual inspection of integrated circuits. This publication covers different and new techniques to model color edge detection with IC applications.  
Advisors: Dr. Susan Hackwood, Dr. Gerardo Beni
- “Color Segmentation using Clustering in Color Wafer Images”, Society of Manufacturing Engineering, VISION '90, 1990, ISSN: 01616382.
- “Color Vision System for Automated Inspection of Solar Panels”, EEE/CHMT International Electronic Manufacturing Technology Symposium.
- “An Optical Alignment Robot System”, Volume 703 of Proceedings of SPIE, International Society for Optical Engineering, Integration and packaging of optoelectronic devices.

#### **Awards/Honors/Memberships**

- Member of the Student Center Leadership Advisory Committee (SCAC) for Cuyamaca College 2018.
- Astronomy & Physics Career Panel Advisor for Careers in Sciences Series, San Diego State University, Spring 2018.
- Scholars without Borders Honors Society for academic achievement, SDSU Astronomy 2014.
- Best Conference Paper Award: “Color Segmentation using Clustering in Color Wafer Images”, Society of Manufacturing Engineering, VISION '90, 1990, ISSN: 01616382.
- Tau Beta Pi Honors Engineering Society, Cal Poly University, Pomona.
- Cum laude graduate, Cal Poly Pomona, BS in Chemical Engineering.
- Recipient of the Stauffer Chemicals Grant for academic achievement, Cal Poly Pomona.
- Honors at Entrance, Dean’s List & Honor Roll, Cal Poly University, Pomona.

#### **Community Outreach/Engagement**

- Active in school curriculum and career mentoring of current and former students in regarding to job placement, internships, and university enrollment and graduate schools.
- Gave planetarium shows for younger students during Science Day at San Diego State University, with the Physics and Astronomy Department, 2011-2014.
- Organized MiraCosta College Telescope Observing Star Parties for students and the general public 2018.
- Worked at the Mount Laguna Observatory Summer Visitors Program for Campers and Day-Use Visitors of the Cleveland National Forest, 2011 – 2013.
- KUSI News interview on the January 2019 Super Blood Wolf Moon Lunar Eclipse.  
<https://www.kusi.com/super-blood-wolf-moon/>