April 2018

Dear Physics Alumni,

It’s Occidental College Physics newsletter time again. As a first-time Chair of the Physics Department, this is my inaugural Chair’s Welcome letter. I have enjoyed reading about all of the interesting things you have been doing since graduating from Oxy. Here are some news highlights from the Physics Department.

Professor Snowden-Ifft has been searching for dark matter for the past 20 years. But since dark matter is scarce he, like the Grinch, has decided to make some instead. His new research project seeks to produce dark matter in the beam dump of an electron accelerator, the SLAC accelerator at Stanford is a possibility, and detect it utilizing a unique, negative ion time projection chamber he developed.

Dennis Eggleston is continuing his research on confinement and transport in non-neutral plasmas. The focus is trying to resolve the discrepancy between his transport experiments and theory. His latest publication uses chaos theory to analyze the particle dynamics in the experiment. Currently, he is starting experiments on the motion of an electron vortex as a probe of electric field asymmetries in his trap.

Alec Schramm is working hard on a textbook based on his Math Methods course. Although he is beginning to wonder whatever possessed him to sign a contract with Cambridge University Press, he’s optimistic that the book will be out in time for the next newsletter.

George Schmiedeshoff continues his National Science Foundation funded study of quantum phase transitions using thermal expansion and magnetostriction measurements on novel metals containing f-electrons (YbAgGe for example) and on non-magnetic perovskite insulators (ScF3 for example). A new dilatometer design will soon be available for users at the National High Magnetic Field Laboratory, the new design can operate when immersed in liquid helium, permitting measurements from around 1 K to as low as 0.012 K. George continues to collaborate with colleagues at Los Alamos National Laboratory (where about a dozen dilatometers of his original design will soon be operating) and at Ames Laboratory at Iowa State University. A few years ago George created a new 200-level course called Engineering Materials which will be offered again this Fall. George is also looking forward to teaching the first-year majors in Physics 110 this Fall.

As for myself, I continue to perform numerical simulations of Turbulent Rayleigh-Benard Convection and then analyze the data to better understand turbulence. Over the last three years, I have been granted 300 million hours to run on supercomputers at Argonne National Lab and the Juelich Supercomputing center in Germany. I have also been granted a Mercator Fellowship from the Deutsche Forschegemeinschaft, which enables me to visit the Technische Universitat, Ilmenau, Germany for one month every summer to collaborate with researchers there.
Charles Oravec, our Lab Supervisor and Electronics Technician, won the Sarah Gilman award last spring for his outstanding service to our department. This includes being the Technical Director of the Solar Cup program funded by the Metropolitan Water District of Los Angeles, helping advise the Oxy Engineering Club, organizing a student outreach trip to view and teach about the solar eclipse at Hansen State Park in Wyoming, and continuing to lead student projects and star-gazing parties. Chuck’s work with the Engineering Club led to a partnership this past year with JPL where our students designed proposals for interplanetary spacecraft for possible use in future missions.

Our beloved departmental assistant Tracy Mikuriya left us this year for a full-time position in the High-Energy Physics Department at Caltech. We wish her all the best. New faces in Hameetman since the last newsletter include our machinist William De La Vega, our lab coordinator Igor Umanskiy, and our departmental assistant Elisa Ruiz. We are lucky to have them. And we are especially excited about Sabrina Stierwalt, our new tenure-track Assistant Professor in Astrophysics, who will be joining us in the Fall of 2019.

Keep in touch,

Cheers,

Janet Scheel, Chair
WILLIAM DE LA VEGA, MACHINIST
Bill is a mechanical engineer with experience in thermal vacuum testing of space craft and related hardware. He operated a research and development laboratory at a major aerospace company for 10 years and has a very wide skill set which also includes fabrication, machining, and welding. He also enjoys woodworking and photography and has taken courses in both to improve his skills.

ELISA RUIZ, ADMINISTRATIVE ASSISTANT
Elisa completed her Masters Degree in Opera Performance at the USC Thornton School of Music. Prior to working at Oxy, she worked as an academic event planner for the USC Dornsife College of Letters, Arts and Sciences. When she’s not helping the Oxy faculty, you can find her mastering the Bel Canto operatic technique and hiking with her dog Nelson for inspiration.

SABRINA STIERWALT, ASSISTANT PROFESSOR (FALL 2019)
Dr. Sabrina Stierwalt is an extragalactic astrophysicist at the California Institute of Technology. She works with a diverse group of students to study star formation and gas dynamics in nearby colliding galaxies to understand how galaxies form and evolve. She travels all over the world to observe the sky. Sabrina also hosts a weekly science podcast with Macmillan Publishing via her alter-ego Everyday Einstein with tips for making sense of current science events.

IGOR UMANSKIY, LAB COORDINATOR
Igor Umanskiy is the Lab Coordinator who is responsible for developing and maintaining laboratory components of course sequences taught at the department. Dr. Umanskiy has many years of experience in teaching various physics courses, and research in the areas of molecular spectroscopy, intramolecular dynamics and exotic atom formation. He also worked at high-level administrative positions at universities in Russia.
SOLAR ECLIPSE WYOMING
Chuck Oravec and a group of Physics Students traveled to Boysen State Park near Shishoni, Wyoming to view the Solar Eclipse last August.

Emily Duong and Michael Winters observing the solar eclipse through sun filters. Two minutes before totality as seen through the 102 millimeter refractor telescope.

Sara Dalessi, Kade Cheatham and Emily Duong sporting their Oxy Physics pride. The “Swinging Bridge” at Hot Springs State Park in Thermopolis, Wyoming.
JPL VISIT
Physics Students from the Oxy Engineering Club went to the Jet Propulsion Laboratory on February 22, 2018 in Pasadena to present their work on designing interplanetary spacecraft.

“Planetary Defense Techniques” presented by Niko Romer
“Uranus Magnetosphere Mission” presented by Ethan Vu

“Titan Orbiter” presented by Craig Lau
“Comet Sample Return” presented by Jonathan Lamb
STATISTICAL PHYSICS LECTURE
Mario Carillo, Isaac Ehle, Ethan Vu and Ben Sappey listening attentively to Professor Janet Scheel during her Statistical Physics Lecture.

GENERAL PHYSICS II LAB
Professor Igor Umanskiy explains experimental verification of the lens equation to Robert Zhang and Nicole Pelletier.

MODERN PHYSICS LAB
Tyler Riddle, Michael Kwan, Ian Jan and Alex Bonomi conducting the blackbody radiation experiment in Professor Jean-Luc Gauvreau’s Lab.
"My father and his wife, Barbara, took a long overdue vacation to England around 1978. They were wrapping up their trip and, with some time to spare before heading back, decided to visit the home of Sir Isaac Newton. Of course, visiting Newton’s home for Joe, a scientist, and Barbara, an anglophile, was perhaps like visiting Mecca. Outside Newton’s home was the famous apple tree - which was not only in bloom at that time of year, but was bearing fruit. I suppose there is a bit of child thievery in all of us when a harmless act might cause the memory of a lifetime. And since I’m pretty sure no one was selling Sir Isaac Newton apples at any farmer's market, Barbara saw fit to snatch one up as a keepsake.

This mischief presented a bit of a problem. Customs people at London’s Heathrow airport frown on produce of any kind crossing the pond to America. So, being the dutiful husband, Joe took the apple from Barbara. To him, this was good fun. When questioned by customs agents about whether they had any produce to declare in their luggage, it was quite simple to tell the truth. The answer from both was a resounding, "No." But then the apple was not within the confines of their luggage. It was in the pocket of my father’s jacket!

The apple survived the trip, and they were both - of course - delighted. Thinking nothing much more about it, Barbara went on with her business. But thinking MUCH more about it, Joe went about his typical business - finding amusing things to do. So he contacted the Biology Department at Oxy and asked if they might help him with a secret project. And so they did. I’m pretty sure it was John McMenamin who grafted the seeds from the treasured apple, which then became a seedling, and later a tree. Upon Barbara’s death, Joe had a plaque created to commemorate the tree."

The Newton Apple Tree grew behind Herrick Chapel for 37 years, dying of old age in 2016.

The Oxy Bookstore is now selling mementos which include a beautifully sculpted and varnished piece of the actual tree on a quartz base. These were handmade, onsite, in the college’s machine shop and include a commemorative card. Order online by googling “Occidental College Bookstore Fundraisers.”

Each sale will result in $100 going to purchase of new apple trees from Sir Isaac Newton’s estate in England to be planted outside the Hameetman Science Center and to support summer research in the Physics Department.

Supply is limited. Don't miss out!
*Each piece is unique and may look slightly different than the picture*
1951

ROBERT W. MCALLISTER
2028 S. Sherman St., Denver, CO 80210
bobmca@centurylink.net
Ph.D. Physics, Stanford

Lots of hospital procedures, including treatment for bladder cancer. Cancer free according to 2 cystoscopies in last 6 months. Look forward to camping with my kids and their progeny when possible in Wyoming with our (Rita Thaemert’s and mine) slide-in camper on Toyota Tundra truck in Pinedale. Will see most of our first opportunities to observe total solar eclipse.

1954

DONALD MILLER
123 Harbor Drive #311, Stamford, CT 06902
milled2@me.com
Columbia University: 1956 MA; 1960 PhD

I have been living winters in Jekyll Island, GA and the rest of year in Stamford, CT with my partner Marie-Laure Degener. I continue biking and playing tennis weekly and traveling.

1957

EDWIN BROTEMARKLE
9300 Shonshone Avenue, Northridge, CA 91325
brotmark@gmail.com

Just taking it easy after getting a pacemaker a couple of years ago.

NEVILLE W. REAY
reay14@gmail.com
Ph.D.

I used to say that if someone passed away before eighty people would say “he died so young”. After eighty, they’d say “he lived a good life”. Well, I’m now 80 and am flaunting the odds by continuing to live a good life...though there’s not much physics in it. After forty years of experimental high energy physics and eight years of physics education research, in 2010 I retired for the third time and moved with my southern wife, Fleda Anderson, to Nashville. But last year I enjoyed tutoring a returning veteran so much that I’m considering Vanderbilt University’s offer to lecture a beginning physics course. I may dust off my old clicker conceptual question sequences and jump back in the game, albeit part time. Surprisingly, lots of folks in the U.S. are still using those sequences, and they’ve even gone abroad. A book about them is about to be published in China. Last Fall, the 1957 track team was inducted into the Oxy Athletic Hall of Fame. As one of the 21 surviving members, it was a joy to attend the ceremonies and see our beautiful campus one more time. High impact activities are prohibited by a fake hip but I’m still cycling, though more slowly. The 26 MPH average for 25 miles of my 40’s has dropped to 18 MPH. (This is PHYSICS, there have to be NUMBERS). For several years, I’ve been taking keyboard/piano lessons from a local jazz pianist. I can improvise, and am composing the best popular and classical tunes that no one will ever hear.

1958

JOSEPH ABBOTT
744 Lynnhaven Lane, La Canada, CA 91011
joeabbott1@earthlink.net

Restoring a 1940 Ford Deluxe Coupe.
I mainly volunteer to preserve, restore, and maintain local wildlife habitat, mostly coastal wetlands. I am also on an advisory committee for the City of San Diego Water and Wastewater Department. For recreation, I enjoy birding and sailing.

1961

DWAIN DEETS
1770 Whitehall Rd., Encinitas, CA 92024
dwain769@me.com
M.S. Physics SDSU; M.E. UCLA

Celebrated 45th anniversary of NASA Digital Fly-by-Wire first flight, I was lead research engineer.

JAMES MCCARTHY
104 Mill Pond Road, Verona, VA 24482
jmccarthy614@gmail.com
M.S., Ph.D. Physics, Stanford

I have been semi-retired for almost 10 years. Found old summary CV from more than 15 years ago. Includes University of Virginia from 1975, W.L. Lyons Brown Professor of Physics, 1986 - Director of Institute of Nuclear and Particle Physics, and 1993 Fellow, American Physical Society: 106 publications in fields of interest; particle and nuclear physics. Recently, active in wild life conservation, Greenpeace...a lot of politics. Started a long term interest in math number theory - non practical which paid little attention too, audited online TV courses MIT, complex variable analytics. Learned a lot from reading Euler and Gauss - English translation.

1960

LORRAINE LOIS TURNBULL FOSTER
8735 White Oak Avenue, Northridge, CA 91325
lltfoster@gmail.com
Ph.D. Caltech

Crossword puzzles and iPad games.

ARNIS LUTERS
13993 Loma Rica Dr., Grass Valley, CA 95945
aluters@pacbell.net

Enjoying retirement by vacationing, playing golf and pickleball.

JIM PEUGH
peugh@cox.net

Still enjoying travel, domestic and European. Volunteer activities include the Crescenta Valley Fire Safe Council.
1962

DAVID ASHCRAFT
P.O. Box 725, Shasta Lake, CA 96019
dsashcraft@charter.net

Retired. Doing some traveling.

RONALD BOETTCHER
M.S. Electrical Engineering

Enjoying retirement and 5 grandkids.

LEIF ISAKSEN
1807 Sebastian Dr, Burlingame, CA 94010
Leif@quest4wisdom.com
Ph.D. Electric Engineering Systems, University of Southern California

Retired. Member of Oxy Investment Committee. Volunteer college coach for underserved students. Mentor for formerly long-term incarcerated men as they re-enter society and become entrepreneurs or find employment. Being curious and practicing critical thinking as taught as a physics major at a liberal arts college. I own quest4wisdom.com and drcurious.net.

HILARY JONES
hdjones@pacbell.net
Ph.D.

I have been doing astronomy for several years now. Lately I have been gathering equipment so that I can photograph the solar eclipse on August 21, 2017. I want to be able to study the corona in particular, so I have programmed my computer to take the appropriate exposures at the right time.

GARY MCINTIRE
733 Santa Rosita, Solana Beach, CA 92075
gnm McIntire@gmail.com
M.S. Physics, M.B.A. University of Arizona

Retired.

MARIO A. PANCINO
P.O. Box 97, Montrose, CA 91021
collwrld@att.net

Retired.

MICHAEL WELLS
mwellsmt@gmail.com
M.S., Ph.D. Stanford University

I continue to split my time between Montana and New Zealand (West Coast, South Island) and stay active with walking, fly fishing, hiking, travel, and home maintenance. I get my math and engineering kicks watching our two sons at their work. One is an engineering project manager at FEI, Portland and the other is a senior director (data analytics) at Trip Advisor, Boston. I also enroll in several Coursera online science and history courses each year. I'm fortunate to be healthy, active, and upright and hope to stay that way for many more editions of the Physics Newsletter. Cheers.

1963

JAMES CRAFT
3751 W 136th Ave Unit L3, Broomfield, CO 80023
M.S. Physics, UCLA, Ph.D. Physics, UCLA

Retired, but working part-time for The Aerospace Corporation. In March 2017, I really retired. Now I'm doing a lot of work on genealogy. I'm also building a significant model railroad in my basement--modeling Los Angeles in 1954.

WILLIAM B. GRANT
1745 Pacific Ave., Apt. 504, San Francisco, CA 94109
wbgrant@infionline.net
Ph.D., Physics, UC Berkeley

I am conducting paper research on the health effects of diet and the health benefits of UVB exposure and vitamin D.
Still on faculty at UNC, doing biochemistry combined with electron microscopy.

JOSEPH MALONE
335 Alexander Ave., Redwood City, CA 94061
jmalone@blackberry.com
M.S. Tufts University
Tech writer at blackberry. Babysitter for the grandkids.

PAT MARRIOTT
3305 Upton Court, Wilmington, NC 28409
marriottpw@aol.com
M.B.A. Stanford, MSME Berkeley
Music director at local NPR affiliate public radio station, docent on WW-II battleship USS North Carolina, several nonprofit boards of directors.

HARRY SPILMAN
1018 Magnolia Street, South Pasadena, CA 91030
dontbetchalk@yahoo.com
1965
JOHN CARROLL
77 Musket Dr., Nashua, NH 03062-1442
W1PK@comcast.net
I'm still semi-retired, working at Sunrise Labs when they have a project for me. Currently, I'm designing some of the power electronics for a critical care device and learning more about lithium ion batteries than I knew there was to know. Still writing science fiction -- the editors of Ring of Fire Press asked my co-author Edith Wild and me to expand our story "The Undergraduate" to novel length. It was published in January under the title "Love and Chemistry." I haven't done much traveling the last couple of years except to a science fiction convention in Baltimore, but then New Hampshire is a place where other people come on vacation.
I was part of the ham radio support group for the Boston Marathon again this year, and helped write parts of the operation plan.

PAUL CHELSON
908 Peacock Station Road, McLean, VA 22102
paul@chelson.com
M.S. UCSD, Ph.D. Claremont Graduate University

Married to Judy Price (Oxy ’66) and we celebrated our 50th anniversary last year with a wonderful cruise around Europe which started in England and finished in Rome. While retired, I am still on several company boards, including Christianity Explored Ministries. We are blessed in that all of our immediate family, children and grandchildren, all live close to us in this part of Virginia.

JIM DAVIS
M.S., Ph.D.

Semi-retired, still doing assembly language software for very small computers (25 bytes RAM, not kilo, not mega, not giga). Also reading The Feynman Lectures on Physics (quantum mechanics).

RICHARD MILLER
M.S. Physics, University of Oregon

Travel and grandkids. Antarctic, Australia, New Zealand, S. E. Asia, Europe.

1966

KEITH BALLANTINE
17470 Clifton Blvd., Lakewood, OH 44107
mr.b@gaggle.net
M.A.T., University of Chicago

I have been retired from the Department of Defense overseas schools for eight years now, and have replaced working for a school system with travelling, volunteering, and enjoying the busy classical music scene here in Cleveland.

My wife, Susana, and I are pleased that our younger son and his wife have a baby boy, Xavier. She gave birth to him just before my 72nd birthday this June. The highlight of the travelling was an eleven day trip through Utah and New Mexico in February, seeing the wonderful national parks there, Monument Valley, standing on the 4 corners monument, and then visiting fellow Oxy physics graduate, Bud Burns in New Mexico. Volunteering as an usher for the Cleveland Orchestra has been very worthwhile. Musical highlights included hearing an entire hour of John Dowland pieces played on a lute by a senior conservatory music professor, and also hearing the Cleveland Orchestra play Beethoven’s 5th symphony, directed by the orchestra music director himself.

DENNIS BOSCH
1816 Calamar Ave.,
dennis.bosch@gmail.com
M.B.A., University of Pennsylvania
Retired.

STEPHEN MALONE
1912 NE 63rd St, Seattle, WA 98115
smalone@uw.edu
Ph.D. Geophysics, University of Nevada

I am still practicing retirement (not very good at it) from the University of Washington where I still help with operating the Pacific Northwest Seismic Network part-time. My wife (Linda Coontz, Oxy1966) and I are away traveling about 1/3 of the time; some recent trips: Portugal, France, Philippines, Singapore, England Scotland, Iceland and frequently to Canada (visit grandkids) and western US camping/visiting trips. I recreationally cycle about 3K miles a year and do a little skiing and hiking. I also am into cooking fancy meals, some of which are actually edible.
TONY PANERO  
165 Belvedere Ave, San Carlos, CA 94070  
tpanero@gmail.com

Enjoying retirement and grandchildren. Travel (Kenya, Copenhagen, Amsterdam, Munich, Vietnam, Alaska - finally saw an eclipse, Paris) and cycling seem to be my primary pursuits.

ED SELDEN  
3184 Waverley St, Palo Alto, CA 94306  
edselden@comcast.net

My wife and I are very busy in retirement. Many of our activities are associated with making and listening to music.

1968  
JIM ROUGH  
1040 Taylor St., Port Townsend, WA 98368  
jim@wisedemocracy.org  
M.S. Electrical Engineering, M.B.A.

I created a set of ideas which comprise our nonprofit organization, the Center for Wise Democracy. We are interested in facilitating wise democracy globally, nationally, regionally, etc. FYI check out www.WiseDemocracy.org

1969  
RON KREUZENSTEIN  
414 Ives Terrace, Sunnyvale, CA 94087  
rkreuzen@sbcglobal.net  
M.S. Electrical Engineering, Stanford

Still working for IBM as a mainframe firmware engineer.

KEITH NAKANISHI  
1644 Frankfurt Way, Livermore, CA 94550  
kckn@aim.com  
Ph.D. Geophysics and Space Physics, UCLA

Retired. Spending full time on my ham radio hobby and traveling.

1970  
BOB CONNORS  
Campbell, CA  
bconnors6000@gmail.com  
M.B.A., Washington University


PETER JOHN FRASER  
3092 Wilby Rd, Baden, On n2r 1h6, Canada  
pjf@thinkage.ca  
Master of Mathematics

President Thinkage Ltd.

RICHARD HELFRICH  
Las Vegas, Nevada  
rwhalameda@gmail.com  
M.S. Electrical Engineering

Using up frequent flyer miles and hotel points to travel outside the USA with my wife. It is great to visit countries as a tourist after decades of business trips to several dozen countries. Those business trips offered limited opportunities to sightsee. Pro bono activities including serving on several university boards and committees and regional economic development. Management consulting, developing international joint ventures and working with startups developing hardware based products for medical, energy and industrial applications.

MAY JANG  
jang_m2@yahoo.com  
M.S. Engineering, Ph.D.
Since retiring from the Boeing Company's Space and Communications division 4 years ago, have been volunteering as a science editor for a educational literary website, and more recently helping a new company develop a solution to integrate renewable energy sources with conventional electricity sources.

ANDREW LARSON  
1209 Adair Drive, Richland, WA 99352  
aklarson@charter.net  
M.S. Nuclear Engineering, Columbia University

Enjoying retirement with my wife Kate. Reveling in setting my own schedule. Reading/rereading classic novels, encountering new perspectives on our history, trying to keep up with developments in physics. Speaking of which, should you ever venture to Southeastern WA you should plan to visit the LIGO and our local portion of the Manhattan Project National Historic Park.

RICHARD RAMMER  
708 Frederick St, #209, Santa Cruz, CA 95062  
richramm@gmail.com

Travel to Spain and the UK. Retirement from work as a CPA.

STEVE SHULER  
2358 University Ave #170, San Diego, CA 92104  
sdbudde@yahoo.com  
M.S. Caltech

Retired, but acting as caregiver to family member who suffered a stroke.

1971

WILLIAM ALMASSY  
1110 W. Francine St., Pahrump, NV 89060  
walmassy@alumni.caltech.edu  
B.S. Engineering & Applied Science; M.S. Mechanical Engineering, CalTech

Same.

RANDALL HAWKINS  
M.S., M.D., Ph.D.

I am a Professor in the Department of Radiology and Biomedical Imaging at UCSF.

1972

TERRY JONES  
602 Laurel, Saint Paul, MN 55102  
tjj@astro.umn.edu  
Ph.D.

I have one more year until retirement from the Minnesota Institute for Astrophysics. My (last?) graduate student will finish the same time I retire! Recent funding includes upgrading an instrument we built for use on the MMT telescope in Arizona and observing on SOFIA (NASA's Stratospheric Observatory for Infrared Astronomy). This Fall I taught my last course at the University.

REID SAMUELSON  
1700 Earlmont Ave, La Canada, CA  
reid@samuelsonpartners.com  
M.B.A., UCLA

The family real estate business is now three generations - Jack Samuelson at 92 and class of '46 stills work each day and Todd Samuelson recently home back from Hong Kong after 13 years in Corporate Real Estate services. So, the business keeps me busy, as well as, being a board member at the YMCA of the Foothills and a trustee of Occidental, currently serving as the Chair of the Budget and Finance committee. We have three granddaughters that live in Louisville, CO.

DAVID SCHNITGER  
Avolencia@gmail.com

Retired from City of Los Angeles as a Director of Systems, IT work. Also I worked in construction as a civil engineer.
I visited Morocco & Central America this past year with spouse Sally (Oxy '74). Helping with 2 grandkids, spending part of each year in northeastern US. Planning to view my first total solar eclipse this August.

1973
CHARLES LOCKERBY
CLockerby@aol.com
MSME, Stanford

Retired. Living on a Caribbean island.

ANDREW S. WARIANKA
5303 W. Dobbins Rd., Laveen, AZ 85339-2702
andrew@warianka.com


1974
JOHN KASTNER
4541 Elder Avenue, Seal Beach, CA 90740
john@kastner.us

B.S. Engineering, Caltech; M.S. Computer Science, UCLA; Ph.D. Computer Science, Rutgers

Senior Engineer at Quantum, Corp. Working on hardware and software for very large storage systems in the multi-petabyte range.

CHRISTOPHER LENK
37 Wolf Pine Way, Concord, MA 01742
clenkpsyd@gmail.com
Psy.D.

I retired from Massachusetts General Hospital after 35 years. I was the Chief Psychologist at the MGH Chelsea Health Care Center since 1989. I enjoyed training over 100 Graduate Students in Clinical Psychology. My wife Veronica and I have lived in Concord MA for 25 years.

1975
DOUG HALL
3560 Studio Drive, Cayucos, CA 93430
drdouglaswhall@gmail.com
Ph.D. Applied Physics, U.C. Davis

Life: Janene and I spend the summer in New Hampshire near two of our three daughters, helping to take care of three grandsons under eight years old. Subsets of the boys spend two day and overnight stays each week; we take the next day to recover. We hiked for 10 days with the Sierra Club in Northern Spain last fall and are going to do another trip through the Pyrenees next spring. Science & Technology to keep the neurons firing: I've started teaching one upper division course a quarter in the EE department at Cal Poly San Luis Obispo (25 minutes from our CA home). I really enjoy working with the dedicated and energetic students. I am also an advisor for a solar start-up out of Stanford. I volunteer with the local affiliate of Grid Alternatives, a non-profit that installs solar on low-income housing and trains installers in the process. Janene is a docent at the local natural history museum at Morro Bay, organizing and giving school group tours. All-in-all, we are healthy and feeling good.
ROBERT HUGHES
1838 W. Portobello Ave., Mesa, AZ 85202
rhughes11@cox.net

I'm still working for a general engineering contractor based in Arizona. I was in their Contracts Dept., but have moved back into their Estimating Dept. I'm writing statements of qualifications and technical proposals for heavy civil projects including urban freeway expansions, water lines relocations, and light rail extensions. My grandson is now 3 years old, and I spend much time with him.

KEITH MARZULLO
1 Scott Circle NW, Washington, DC 20036
keithmarzullo@gmail.com
M.S. Applied Physics, Ph.D. Electrical Engineering

I was in the White House Office of Science and Technology Policy, and left a year ago to become the dean of the University of Maryland College of Information Studies.

1976

DOUG GARRETT
doug@anetsc.com
M.S. Computer Information Systems

Two years ago I transferred from Genentech Bioinformatics to a new Roche division using Next Generation Sequencing to develop diagnostic instruments. Last summer I retired for two months, but then started consulting for Genentech. I have much more flexible hours as a consultant and will be taking off three months at the end of this year to travel to Canada, the eastern seaboard of the US and the Caribbean.

DAVID JORDAN
5534 N. Tyler Ave., Arcadia, CA 91006
dwjrdn@gmail.com
M.S. System Engineering, UCLA

Retired from Boeing Huntington Beach at the end of 2014. Still somewhat adjusting to the retirement phase of life. Got a Fitbit about a year and a half ago and trying, not always succeeding, to get my target steps every day. I have been helping my mom - she is 94 and still quite active. Nancy and I are active with various ministries at our church and we try to see our grandson and granddaughter as often as we can (the granddaughter is in Colorado, so sometimes just with Skype).

ERIC MCKINLAY
10240 Byrne Ave
eric@clanmckinlay.com
B.S. Engineering, Caltech; M.S. Computer Science, University of Illinois

Software Development Director at Certent.

KARIE MEYERS
7135 N. Skyway Drive
kariemeyers.nth@gmail.com

I still teach physics at Pima Community College in Tucson. Two children are grown. I'm hoping to retire at the end of this school year. I do the usual stuff - reading, gardening, crafty things. We are headed to the total eclipse this week. Our daughter settled in L.A. near Oxy, so we visit the area often. I enjoyed seeing lots of Oxy alums at the last reunion, including physics majors Sharon Jacobs and Eric McKinley.

1977

SCOTT CORBETT
11720 SW 28th Pl, Portland, OR 97219
scorbett3@comcast.net
M.S. Acoustics, Penn State University

Working in bioengineering space- developing ultrasound finger probe.
1978
HIROSHI AGRAVANTE
hagravante@charter.net
M.S., Nuclear Engineering, UCLA

After my 33-year career, I retired at the end of August 2016. Although I spent my whole career at the same aerospace company complex, the company I started working for was part of the industry-wide consolidations in the past and it has been merged into a larger company. Still, working with various technological programs throughout my career, my physics degree from Oxy has helped me along the way to tackle innovative challenges. Physics degree surely prepared me with broad technical background to be able to understand and adapt as various technical challenges were encountered, including areas in plasma physics, millimeter-wave imaging, weather data analyses and simulations for satellite measurement applications, as well as dreaded system engineering and requirements analyses for various complex systems. I am now taking it easy for a bit, enjoying my free time and exploring different interests.

DONALD DEARBORN
1270 W Chula Vista Rd, Tucson, AZ 85704
mhdrdearborn@q.com

Just retired from Raytheon.

1979
ROGER WILLEY
M.B.A. Booth University of Chicago

Program Manager for deployment and pointing system (DAPS) on NASA's NICER. Project recently launched and now on the Space Station https://www.youtube.com/watch?v=sDd2PjbXEg8

1980
OBED SCOTT
oesj@msn.com
Contract Engineer in Aerospace.

1981
 DANIEL LOW
1367 Woodriff Ave., Los Angeles, CA 90024
lowdowndan@gmail.com
Ph.D. Physics, Indiana University

Still at UCLA as Vice Chair of Medical Physics in the Department of Radiation Oncology. Living in Westwood and enjoying being back in L.A.. Professionally, I'm working on building the already strong reputation of our department. We are doing some great research and running a state-of-the-art clinic. Our daughter graduated college this year and is planning on doing a gap year in D.C.. We are so proud of her - she graduated summa cum laude from Case Western Reserve University. Here's hoping the next two years go as well as the last!

BILL ROBIN
3515 CHASE ST.
Bill_robin34@hotmail.com
M.S. Geology, Cal State University

Working for Geotech company in Denver.

1982
ALAN LOUIE
alan.louie@gmail.com

I started a non-profit, TextGenome.org, to build technology to help kids learn to read better.
1983

JOSEPH NEUHAUS
4558 Royal Av. Montreal, QC H4A2M8, CANADA
joseph@kirkhaus.com
M.S. Physics, UCLA

Re-joined Prime Advantage as an Enterprise Architect.

CHRISTOPHER WATTS
shediwatts@gmail.com
Ph.D.

I work on the ITER project (www.iter.org) in southern France. My job is to design and oversee the construction of the "diagnostics" used for measurements and control of the fusion plasma. Unfortunately, the project is 8 years behind, and operation is first scheduled in 2026 - close to my retirement. We like living in Europe, generally, with its high quality of life and less hectic lifestyle.

1984

MICHAEL BARRETT
12536 Salmon River Road, San Diego, CA 92129
mpbarrett@san.rr.com
M.S. Electrical Engineering Applied Physics, UCSD

I've been working for TRW/Northrop Grumman for 29 years. I am currently chief engineer for the F22 Communications, Navigation and Identification system. In the past few years, I have made trips to new England to visit my children at college. My son Ryan just graduated from Bowdoin and my daughter Erica just started at Williams.

STEVE MILLMAN
M.S. Electrical Engineering, Ph.D. Electrical Engineering, Stanford University

Still at the same job I got when I finished school, but the ownership has changed five times and is about to change a sixth time. This is somewhat surprising as the smallest purchase price in all these transactions was nearly $17 billion and the next purchase is over $47 billion. Industry consolidation is a strange thing. I've been working on cryptography for the last 11+ years and lead a team of designers creating crypto hardware. Our eldest just finished his first year at Barrett, The Honors College, which is part of Arizona State University. However, with all his credits from community college while in high school he'll be a junior this fall. Our second son will be a junior in high school and was a captain of the JV soccer and volleyball teams last year. Our baby girl will be a sophomore and played on the varsity basketball team as a freshman. The team lost in the large school state semifinals and is looking to improve this year.

PETE NELSON
1540 Patton Drive, Boulder, CO 80303
pgnelson@gmail.com
Ph.D. Physics, UC Irvine

Running my own consulting business designing, building and testing various types of scientific instruments. Enjoying the Rocky Mountains. Hoping to retire in a few years.

1985

ERIC GRAAT
1161 Sonora #204, Glendale, CA 91201
M.S. Physics, CSULA

I am still performing orbit determination and navigation analysis for the Mars Reconnaissance Orbiter (MRO), the Mars Atmosphere & Volatile Evolution (MAVEN) orbiter, and the Indian Mars Orbiter Mission (MOM).
ALAN LIMBACH
Los Altos, CA 94022
alan.limbach@dlapiper.com
J.D.

Still enjoying patent litigation and patent prosecution at DLA Piper. In the last two years, I have focused mainly on semiconductor non-volatile memory technologies, which has been very interesting. We have also been preparing for being empty-nesters, as daughter Lauren heads off to college this fall.

JERRY R. HOBBS
89 Linda Terrace, Portsmouth, RI 02871
hobbsjr02871@gmail.com
M.A. International Economics, International Relations, Johns Hopkins University, School of Advanced International Studies

ADAM VALI
1939 Port Nelson Pl., Newport Beach, CA 92660
avalidi@debconstruction.com
M.S. Civil Engineering, Construction Engineering and Management

We moved for the second time in four years. Our plan is to stay put for at least the next 15 years.

DOUG COPELY
M.S., Ph.D.

I continue teaching introductory physics and astronomy courses at Sacramento City College. This year marks my 20th at the college (time flies, eh?), but I’m still enjoying the hell out of it! Sharing the discipline and creativity of physics with students every semester never gets old, and even with the increasing political, technological and monetary pressures on the profession, teaching remains very fulfilling. This summer (when not traveling with my wife) I’ve been spending extra time following the JUNO mission to Jupiter - particularly the magnetic field data.

1986

1987

1988

1989
It appears the 'Dynamo' theorists are going to have their work cut out for them! As for more mundane activities, I've been assisting in our department's move to temporary facilities while we wait for a new building to be constructed. It's been a stressful and eye-opening experience over the last two years, and my colleagues and I will be glad when it's over. I owe quite a bit to the Oxy Physics department, and I remain deeply grateful to all those, like my advisor Dr. Eggleston, who provided those wonderful educational experiences that are still with me today. Cheers!

1990

NATHAN WANG
mr_nwang@yahoo.com

Life has kept us busy as we attempt to raise six children into responsible adults. I love that my teenage sons still want to spend time with their old man and my evenings are spent working out at the gym together. I recently drove them to the Oxy campus to look around and get some onion rings from Troy Burgers. I'm still working as the test engineering director at Skyworks Solutions. It's amazing to see all the different ways wireless connectivity is changing the way we live and how quickly the industry has changed.

1991

STEFAN VAN DER BIJL
I've been running a software company out of Ho Chi Minh City, Vietnam, helping startups scale quickly by providing them drop-in engineering teams. Before that, I launched two software startups in Singapore. Love being in SE Asia.

1993

WILLIAM GUSTAFSON
480 Palm Dr., Richland, WA 99352
bill.gustafson@juno.com
Ph.D. Atmospheric Science, University of California, Davis

I continue to work at Pacific Northwest National Laboratory where I do research on improving climate models. Recently, my atmospheric modeling has turned toward higher resolution models called large-eddy simulation where the clouds are mostly resolved.

ROBERT TELLES
501 Pope Street, Menlo Park, CA 94025
telles.robert@gmail.com

I've been enjoying a simpler life as a software engineer at Facebook. I love getting to spend more time with my wife of 16 years, Tiffany, and our 7 year old son, Bobby.

1994

PATRICIA L. ALIREZA
patricia.alireza@physics.org
Ph.D. Physics

Still doing the same type of research in the UK, but last year I did a TEDx talk, which for me was a big challenge and forced me to get out there and tell people about myself.

1996

GREG HESS
1184 Solana Dr, Mountain View, CA 94040
ghess_99@yahoo.com
Master's Electrical Engineering

Designing microprocessors for Apple's mobile products.
1999

JASON DETWILER
jasondet@uw.edu
Ph.D.

I'm an assistant professor at University of Washington in Seattle.

TAMMY TAM
t2598633@yahoo.com
M.S. Mechanical Engineering, Stanford University

Moved into a new home in SF with my family of 4. We have started public school with my oldest. After 15 years in medical devices, I have shifted into a career in pharma/biotech.

2001

RIGO CRUZ
cruzrig@aol.com

I’m currently Working at Franklin High School where I teach physics and engineering. Last year I became a dad to a beautiful little girl. She will be turning one in September.

GIGIO SAKOTA
M.S. Mechanical Engineering, UCLA

Got married about two years ago!

NATE VILLAUME
natevillaume@gmail.com

I led a team to integrate and test two flight computers for Earth-observing radar collaboration with Indian Space Agency. Started working on precision landing system for Mars. I share a dog and 7 chickens with my girlfriend in downtown LA. We've enjoyed trips to Thailand and Germany.

2002

JESSICA KIRKPATRICK
berkeleyjess@gmail.com
Ph.M. Particle Physics, M.S. Astrophysics, Ph.D. Astrophysics

I've been working as a data scientist for various start-ups in San Francisco. I am currently working at Slack. I am also on the Board of Trustees for the American Astronomical Society and I run the Facebook community 'Equity and Inclusion in Physics and Astronomy' where we discuss how to make physics more equitable and inclusive of underrepresented groups.

ERIN (ENGLERT) SCHAFFNER
225 Wallingford Ave, Wallingford, PA 19086
M.S.

David and I are still living in the Philly area where we just bought a home. David just finished his second year as a physics professor at Bryn Mawr college and I've spent the last, almost three years home with our amazing daughter.

2004

EUGENE PLOTKIN
La Verne, CA
Eugeneplotkin@aol.com
M.S. Mechanical Engineering

The last few years have been crazy. I've transitioned from a Systems Engineering position to Capture Management at Northrop Grumman. It's very challenging and requires quite a bit of traveling, but I am liking the work a lot. I'm married with two kids and have a fun time balancing work and life. I look back fondly on my time at Oxy and hope all of you are doing well.
2005

JASON DEXTER
jadexter@gmail.com
Ph.D. Physics, University of Washington

Since Fall 2014 I’ve been leading a small research group at the Max Planck Institute for Extraterrestrial Physics in Munich. Our goal is to use high resolution interferometric observations of gas and stars near black holes to learn about strong field general relativity. Kalista and I also have a son, Jonah, born May 2016.

MICHAEL ZLOTOFF
mzlotoff@gmail.com
M.S. Civil & Environmental Engineering; California PE

Working in environmental engineering consulting.

2008

COLLEEN TIMMINS
corkietimmers@gmail.com
B. A. Film & Photography, MT State University

For the last two years I have been working as a MT State Trooper in the North East corner of this big beautiful state. I get to use both my physics & film/photography degrees investigating vehicle crashes and other crimes.

SALLY JUNE TRACY
Ph.D. Caltech

I am currently a postdoc at Princeton. I study the crystal structure of materials during dynamic compression.

JOSHUA WILLIAMS
jmwilliams@utexas.edu
M.S.E. Mechanical Engineering, Ph.D. Mechanical Engineering

R&D Engineer at Los Alamos National Lab upgrading automated radiation counting systems used for Test Ban Treaty verification and enjoying all the outdoor activities in northern New Mexico.

2009

JONATHAN BECK
nojkceb@gmail.com
Ph.D. Electrical Engineering, Columbia University

Electrical Engineer at AliveCor.

STARLIE CHINEN
Starliechinen@gmail.com
MAT secondary mathematics

Working towards a Ph.D. in Education.

JESSALYN TIMSON
1808 Bank St, Baltimore, MD 21231
jtimson9@gmail.com
M.S.Ed. STEM Education, Johns Hopkins University

Three years teaching middle school science in Baltimore City Public Schools (spent five years before that teaching high school (AP and non AP) Physics.

2010

TATE SMITH
New York, NY
tatesmith7@gmail.com
M.S. Electrical Engineering, University of Texas at Austin

I recently moved to New York and started working as an engineer for Ecochlor, a company that designs and installs ballast water treatment systems for large vessels. Ballast water treatment helps prevent the spread of invasive species to new marine ecosystems, which has become a big issue for the shipping industry.
2011

JENNIFER FOX
fox.jennifer.r@gmail.com
M.S. Mechanical Engineering, UCLA

Building a company in which I make things and teach other folks how to make things!

KOSA GOUCHER-LAMBERT
kosagl@me.com
Ph.D.

In May 2017 I completed my PhD in Mechanical Engineering at Carnegie Mellon University. I will continue on as a Postdoctoral Researcher at CMU in 2017-2018.

NOAH TOVARES
M.S. Mechanical Engineering

Joined the founding team of a startup.

2012

CHRISTIAN HERNANDEZ
christianhernandez0715@gmail.com
M.A. Urban Education Digital Learning

These past two years I have been working in the field of education, attaining my multiple subject credential and single subject teaching credentials in physics. I finished my masters program in digital learning at Loyola Marymount University. I am working at KIPP LA Schools in East Los Angeles, and I am starting my 6th year of teaching science.

2013

ADRIANA BORRAYO
M.S. Civil and Environmental Engineering

Currently working at LA Sanitation as an Environmental Engineering Associate designing waterlines and constructing storm water management projects, obtained my Engineer in Training certificate, working on obtaining my Professional Engineering license, teaching Sunday school at my church, and traveling.

ADRIANA FUKUZATO
M.S. Aerospace Engineering

In the last two years, I have been gaining work experience in the aerospace industry. After receiving my Masters in AE in Spring 2015, I worked as a Satellite Controller at Skybox Imaging. I then moved to a San Francisco startup called Planet Labs and have been working there since as a Satellite Fleet Operator, where I help commission, monitor, and maintain 100+ earth imaging satellites.

ALISSA MONTE

Working on my Ph.D. in nuclear/particle physics. I work on DarkSide-50, a direct detection dark matter experiment. Getting close to the finish line!

2014

FRANK BULL
56 Ludlow Street, New York City, NY 10002
frank.paul.bull@gmail.com

EMILY HAWKINS
emilyhawkins@ucla.edu

I am entering my 4th year of a Ph.D. program at UCLA in the Department of Earth, Planetary, and Space Sciences working towards a degree in geophysics/space physics. I conduct laboratory experiments using a new, large-scale device at UCLA, to study rapidly rotating, turbulent convection with application to planetary interiors.

KYLE REUTHER
European Msc in Nuclear Fusion and Engineering Physics

Getting my masters and working.
2015

BRYAN DUEÑAS
R&D Engineer at C2 Therapeutics.

EVEREST LAW
M.S. Theoretical Physics, University of Edinburgh

Completed my M.Sc. in Edinburgh, UK, then began my physics Ph.D. at USC.

ANTON MOLINA
Antonsf@stanford.edu

I completed a Fulbright fellowship in Germany. Currently, I'm pursuing a Ph.D. in Materials Science and Engineering at Stanford University.

STEWART RENEHAN
1815 S Lane St, Seattle, WA 98144
sarenehans@gmail.com
M.S. Statistics, expected 2018

I have been working as a data scientist at a tech startup and am participating in a part-time statistics masters program at the University of Washington. In my free time I play soccer and explore the outdoor beauty of the Pacific Northwest.

2016

WILLIAM BERGMAN
willberman@gmail.com

I interned at a new space startup company called Masten Space Systems. We worked on developing small liquid rocket landers for future moon and planetary missions.

ZACK CONRAD
Zconrad11@gmail.com
Masters in Mechanical Engineering

GREGORY ESSAYAN
gpessayan@sbcglobal.net
Master's Degree in Mechanical Engineering (in progress)

I graduated from Oxy in May 2016. During the summer of 2016 I had an internship at BakerRisk a Texas-based structural engineering company specializing in blast research and risk mitigation. I took a two-week break in the middle of my internship to go to Armenia for a medical mission trip. In the fall of 2016, I began graduate school at San Diego State University, where I am pursuing my master's degree in mechanical engineering. My expected graduation date is May 2019; at that point I will have completed all of the undergraduate mechanical engineering classes offered by the school, as well as all the classes to fulfill my graduate-level requirements. I have also joined SDSU's Formula SAE team Aztec Racing, which builds a small-scale formula car for an intercollegiate engineering competition. I have become a very active member of this team, and have been chosen as engine lead for the upcoming build season.

ADAM GOLDFADEN
Earning my master's degree in computer science at USC.

JOHN NIMAN
jniman@usc.edu

I worked as an analyst last year in the LA area and recently started a Physics Ph.D. program at the University of Southern California where I am currently participating in summer research.

2017

DARREN KUSUMOTO
3718 Holden Circle, Los Alamitos, CA 90720
kusumotodarren@gmail.com

Recently graduated from Occidental.

SCOTT POGORELC
spogorelc@cox.net
M.S. Aerospace Engineering

Still working satellite navigation and geolocation.