CU-NIST 'star comb' joins quest for Earth-like planets [1]

[2]
If there is life on other planets, a laser frequency comb developed at the National Institute of Standards and Technology (NIST) may help find it.

Such a comb -- a tool for precisely measuring frequencies, or colors, of light -- has for the first time been used to calibrate measurements of starlight from stars other than the Sun. The good results suggest combs will eventually fulfill their potential to boost the search for Earth-like planets to a new level.

As described in Optics Express[3], the comb was transported to the Texas hills to calibrate a light analyzing instrument called a spectrograph at the Hobby-Eberly telescope. A University of Colorado Boulder astronomer and Pennsylvania State University students and astronomers collaborated on the project.

"The comb worked great," said NIST physicist Scott Diddams. "In a few days, it enabled measurement precision comparable to the very best achieved in the same wavelength range with much more established techniques -- and we hope the comb will do much better as the new technique is perfected."

The NIST comb calibrated measurements of infrared starlight. This type of light is predominantly emitted by M dwarf stars, which are plentiful in Earth's part of the galaxy and might have orbiting planets suitable to life.

To search for planets orbiting distant stars, astronomers look for periodic variations in the apparent colors of starlight over time. A star's nuclear furnace emits white light, which is modified by elements in the star's and the Earth's atmosphere that absorb certain narrow bands of color. Periodic changes in this characteristic "fingerprint" can be caused by the star wobbling from the gravitational pull of an orbiting planet. More than 600 planets have been discovered using star wobble analysis, but a planet analogous to the Earth, with low mass and orbiting at just the right distance from a star -- in the so-called "Goldilocks zone"-- is hard to detect with conventional technology.

The wobbling effect is very subtle. Astronomers are limited by the precision of techniques used to measure the starlight, and infrared frequencies in particular can be challenging to measure precisely with conventional tools. But the NIST comb, which spans an infrared wavelength range of 1450 to 1700 nanometers, provides strong signals at narrowly defined target frequencies and is traceable to international measurement standards. Used with a spectrograph, the frequency comb can act like a very precise ruler to calibrate and track the exact colors in the star's fingerprint and detect any periodic variations.

The NIST comb measured radial velocity -- star wobble -- with a precision of about 10 meters per second, comparable to the best ever achieved in the infrared region of the electromagnetic spectrum. The first field results are limited by the short observation time and technical issues associated with the newly developed experimental approach. The team hopes to soon improve precision to 1 meter per second, roughly the limit to date for measuring visible light from the Sun -- which would put the technique at the cutting edge of infrared astronomy. The NIST comb has the inherent capability to measure star wobble of just a few centimeters per second, 100 times better, although limitations in the spectrograph and in the stability of the star itself may constrain the ultimate precision.

CU-Boulder graduate student Gabe Ycas, along with Diddams and CU-Boulder astronomer Steve Osterman, created the frequency comb, which has widely spaced "teeth," or calibration points, tailored to the reading capability of spectrographs. This work was supported by NIST and the National Science Foundation. Penn State is a partner in the telescope and spectrograph.

For more information visit http://www.nist.gov/pml/div688/comb-030612.cfm[4].

Regents examine revised tuition proposals; vote expected in April[5]

Ric Porreca presented regents with a multiyear rate guarantee proposal

The University of Colorado Board of Regents on Wednesday heard revised 2012-13 tuition proposals for each of the university's four campuses as well as a breakdown of how the tuition would be spent. A vote on tuition is expected in April.

The board had initially reviewed tuition proposals from the campuses during a Jan. 11 special meeting and had asked the administrative staff to develop alternative proposals that re-examined tuition increases and included elements of a linear model and a guaranteed rate model.

Each campus proposal included a merit-based salary pool of 3 percent for faculty and exempt professionals and a possible one-time bonus for classified staff. Under the proposals, employees earning $175,000 or more would not qualify for raises, and raises would be capped at $3,000 for employees earning between $100,000 and $175,000. Regents on Wednesday asked that each campus present tuition models that did not include the proposed compensation pool.

At Wednesday's meeting at 1800 Grant St., Ric Porreca, senior vice chancellor and chief financial officer at CU-Boulder, presented regents with a multiyear rate guarantee proposal to be implemented in 2013, and a one-year proposal that calls for 1.7 percent credit hour rate increase, a 1.7 percent increase for part-time students and a move toward linearity – moving the maximum tuition rate increase for full-time students from 11.25 credit hours to 12 credit hours. The proposal called for a full-time tuition rate increase for students taking 12 or more credit hours by 8.6 percent.

The total estimated revenue generated from the tuition proposals would be $7.7 million, to counter a FY 2012 estimated state tax funding reduction of $6.4 million.

University of Colorado Colorado Springs Vice Chancellor of Administration and Finance Brian Burnett outlined the UCCS proposal that called for a 7 percent rate increase, or $16 per credit hour. Full-time students taking 15 credit hours would pay $6,720 in 2012 and $7,200 in 2013. Total revenue generated is estimated at $6.6 million, countering $6.3 million in state funding cuts since 2009.

The CU Denver tuition strategy proposed undergraduate linearity within three years (FY 2012-13 to FY 2014-15) to close the linearity gap for resident undergraduate students taking between 13 and 18 credit hours. Jeff Parker, vice chancellor of administration and finance, said that financial aid would be provided to resident undergraduate students so they would not experience more than a 9 percent increase during those years. The proposal also makes nonresident undergraduate rates linear during the next three years. Total revenue generated would be $7.6 million for FY 2012, $1.8 million of which would offset cuts in state funding.

Parker said each school and college at the CU Anschutz Medical Campus assesses its peer situation annually and determines how much it can increase tuition in light of state economics, regent guidance, debt load and the peer market.

While guaranteed tuition rates are not feasible for the upcoming school year because of time restraints in implementation, the regents unanimously agreed to continue the discussion.

In the public comment period, student Carly Robinson, CU-Boulder Student Government vice president for internal affairs, encouraged the board to continue working toward guaranteed tuition. "It would be helpful to students and their families to have a multiyear plan," she said.

Florida math professor to lead College of Letters, Arts and Sciences[7]

Peter Braza

A mathematics professor who was recently an interim dean and the acting associate provost at the University of North Florida will be dean of the UCCS College of Letters, Arts and Sciences.

Peter Braza, a member of the UNF faculty for 24 years, was selected following a national search. His appointment was announced Tuesday by Peg Bacon, provost. Braza visited UCCS Feb. 23 and participated in on-campus interviews.

“Peter Braza brings excellent academic credentials and a wealth of experience that should serve LAS well,” Bacon said. “I am excited about the energy and ideas he will bring to campus.”

Braza will begin as dean of the largest UCCS college Aug. 1. The UCCS College of Letters, Arts and Sciences is one of six colleges at UCCS and enrolls more than 5,100 students annually. Braza will replace Tom Christensen who will return to full-time teaching and research after serving as dean since 2005.

Since 2010, Braza has served as acting associate provost at UNF. Previously, he served as interim dean of the College of Computing, Engineering and Construction and associate dean of the UNF College of Arts and Sciences. He joined UNF in 1988 as an assistant professor of mathematics, was promoted to associate professor in 1994 and professor in 2008. He earned a bachelor’s degree in mathematics from the University of Wisconsin, Madison, and master’s and doctorate in applied mathematics from Northwestern University, Evanston, Ill.

UNF, located in Jacksonville, is part of the State University System of Florida and was established in 1969. The university enrolls more than 16,500 students.

“During my visit, I was much impressed by the people and the positive culture at UCCS,” Braza said. “I am honored to be selected as the new dean of the College of Letters, Arts and Sciences. I will be proud to be a dean and faculty member at UCCS, and I hope to establish even greater ties with the community, for both faculty and students.”

In addition to teaching graduate courses in applied engineering mathematics, honors mathematics courses, and graduate courses in chaotic dynamical systems, Braza served on numerous committees including the Intercollegiate Athletic Committee, Foreign Culture Committee, University Technology Committee, and alumni giving program. He founded and coached the UNF Mathematical Modeling Team for five years, and he received a university undergraduate teaching award In 2003. He has been a member of the Society for Industrial and Applied Mathematics and the Mathematical Association of America.

Procurement open house next week[9]

The Procurement Service Center (PSC) is celebrating March as Procurement Month by holding open houses on each CU campus. The System/CU Denver Open House will be 1-4 p.m. March 21 in the PSC offices, fifth floor at 1800 Grant St.

This popular event allows you to meet staff from the PSC and discuss your department specific procurement needs. Attendees report that this interaction is very helpful in making their work – and their departments’ work – easier.

Joining the PSC at the open house will be representatives of the Office of University Controller-Finance & Procurement Business Services, as well as representatives from the University’s strategic suppliers: Christopherson Business Travel, Colorado Correctional Industries (CCi), Dell, Fisher Scientific, Grainger, Konica Minolta, Staples and Xerox.

To register, go to www.cu.edu/psc/[10]

Questions? Contact Charlene.Lydick@cu.edu[11], 303-764-3450, for general information and let Michael.Fox@cu.edu

[12] , 303-764-3457, know of any registration issues.

New sunscreen regulations designed to protect skin from cancer-causing rays[13]

With spring fast approaching, anyone who spends time in the sun should be aware of new sunscreen regulations designed to help prevent skin cancer.

The U.S. Food and Drug Administration[14] (FDA) has released new requirements for sunscreens which will go into effect by this summer, but consumers should already be looking for new labels.

Until now, sunscreen rules have mainly focused on preventing sunburns which are caused by ultraviolet B (UVB) radiation from the sun. Many sunscreens did not protect consumers from ultraviolet A (UVA) rays which contribute to both skin aging and skin cancer.

Now, consumers should look for sunscreens labeled “Broad Spectrum” because these products will protect against both UVA and UVB radiation. The FDA also recommends consumers pick a sunscreen with an SPF value of 15 or higher.

At the University of Colorado Hospital’s Dermatology Department, Theresa Pacheco, M.D., regularly sees patients whose skin has been damaged by overexposure to the sun.

“Many people don’t understand how serious malignant melanoma can be,” Pacheco says. “This cancer kills about one person every hour in the United States, and I tell my patients that most of these cases could have been prevented by regularly using sunscreen.”

Pacheco is also an investigator at the University of Colorado Cancer Center[15].

While using effective sunscreen is important, dermatologists at the University of Colorado Hospital also recommend: Replace sunscreen after a year – it starts to lose its effectiveness as it ages. Limit time in the sun, especially when the sun’s rays are strongest between 10 a.m. and 2 p.m. Reapply sunscreen regularly when spending extended time outside, especially after swimming or sweating. Use a water-resistant sunscreen if you’re going to be swimming or sweating. Wear hats, long-sleeved shirts and pants to cover exposed skin.

Staff Council focuses on upcoming election, benefits update at open house[16]

[17]
?All CU Denver l Anschutz Medical Campus staff were invited to join the conversation Tuesday during an Open House hosted by Staff Council[18] at the Lawrence Street Center.

Members of this governance group[19] are classified staff who serve as elected representatives to the chancellor of the University of Colorado Denver l Anschutz Medical Campus, CU Board of Regents, president of the university, administrative officers and the State Personnel Board.

“Being a member of Staff Council is a chance to represent your own opinions and those of your co-workers,” said Roland Gabeler, Information Technology Services representative to Staff Council. “While it’s also important to express an opinion, know that it is not a guarantee things will change.” But he also emphasized that university administrators

do support the overall work of Staff Council.

In anticipation of this spring's election cycle[20], Deborah Makray, chair, offered a reminder that individuals can self-nominate to run for election to Staff Council. Terms are three years, members must attend monthly meetings and serve on established committees. "The elections this year are particularly important," said Makray, "because so many of our current members' terms are up."

Also on hand to advocate for participation was Joseph Martinez, Colorado Statewide Liaison Council[21], who is on staff at the Anschutz Medical Campus. This group represents higher education classified staff to facilitate communication among the classified staff of Colorado public higher education institutions and disseminates information based on exchanges between the council and other agencies.

Featured speaker at Tuesday's meeting was E. Jill Pollock, CU chief Human Resources officer and vice president [22] (photo: screen left). Pollock encouraged staff to check for updates available online regarding policies and procedures[23]. She also said to expect more information to be shared this spring about a new employee service in partnership with the School of Pharmacy that will help individual employees evaluate prescriptions called 'Rx Consult.'

Pollock also noted that the university is closely monitoring the Colorado Legislature for several PERA-related issues. On that subject, Pollock reminded the group about this Friday's CU Advocacy Day at the Capitol[24].

A helpful list of links to online information[25] is available through the Staff Council website.

Hirsch receives major award from National Cancer Institute[26]

[27]

Fred R. Hirsch, M.D., Ph.D., has received a multi-year, multimillion-dollar award from the National Cancer Institute that will be used to help make progress against squamous cell lung cancer by creating a multi-center program to find targets and treatments for this tumor type.

Recent advances in targeted cancer treatments greatly bolster the prognosis for many types of lung cancer, but according to the University of Colorado Cancer Center investigator, "practically nothing has improved in squamous cell lung cancer in the last decades." About 85,000 new cases will be diagnosed in the United States this year.

Hirsch, associate director for international programs at the CU Cancer Center and professor of medical oncology at the CU medical school, will direct the Strategic Partnerships to Evaluate Cancer Signatures (SPECS) program from the center's Aurora campus.

"First we hope to validate prognostic signatures for early stage cancer, which will tell us who will need additional treatment beyond surgery and who will not," Hirsch said. "Recent research has identified candidates but so far none of them have been proven." These are the genes or proteins that define a cancer's subtype, each with a different prognosis.

"Secondly, we hope to identify new treatable molecular targets and subgroups of patients, who will benefit from specific cancer drugs," Hirsch said.

This project encapsulates the push toward personalized cancer care, evident at the CU Cancer Center and elsewhere. In other cancers, but not yet in squamous lung cancer, knowing a cancer's genetic mutations – its biomarkers – allows doctors to target these and only these mutations, killing mutated cancer cells but leaving healthy cells unharmed.

Until now, squamous cell lung cancer has lagged behind the targeted care for these other cancers. The CU Cancer Center will be the coordinating center for the Squamous Lung Cancer Consortium, which so far includes eight additional US academic institutions: University of Colorado Denver, Harvard University/Brigham and Women's Hospital, Duke University, Mayo Clinic, Princess Margaret Hospital in Toronto, University of California Davis, University of Michigan, and Washington University in St. Louis. The CU Cancer Center SPECS group includes **Wilbur Franklin**, M.D., **Paul Bunn**, M.D., **Ross Camidge**, M.D., **Celine Mascaux**, Ph.D., and **Murry Wines**, Ph.D.

Sands named to Carnegie Project[28]

Sands

Deanna Sands, associate dean and professor of the School of Education and Human Development at the University of Colorado Denver, has been named a member of The Carnegie Project on the Education Doctorate (CPED) research team that will implement a mixed-methods, multi-case study to document the success of initial efforts to redesign the education doctorate.

The 35-member team includes faculty from CPED institutions who have engaged in the redesign of their own Ed.D. programs and newly appointed CPED Research Fellows who are current students or recent graduates of Ed.D. programs. With a $700,000 grant from the Fund for the Improvement of Secondary Education (FIPSE) 18 teams of two researchers will travel to 21 CPED institutions to gather data that will:
Document and evaluate change in the organizational structures of a set of graduate schools to accommodate new professional practice degrees (Ed.D.) for school and college leaders. Document and evaluate change in the signature learning processes, learning environments, and patterns of engagement of faculty and candidates in Ed.D. programs that participate in CPED. Document and evaluate fidelity to a set of guiding principles developed in the first three years of the project. Disseminate lessons learned and best practices for the design and implementation of professional practice degrees to a new cohort of graduate schools of education.
CPED, a consortium of 56 institutions, is working to restructure the Ed.D. to make it a more relevant degree for the advanced preparation of school practitioners and professional staff, one that is distinct from the Ph.D.

Regents delay taking official stand on state transparency legislation[30]

A proposed resolution that would have expressed support for state legislation calling for greater financial transparency at institutions of higher education was tabled by the University of Colorado Board of Regents on Wednesday.

Regent Sue Sharkey had brought to the meeting at 1800 Grant St. a resolution calling for board support of House Bill 1252, Transparency of Higher Ed Financial Information, which would require more detailed financial reporting in the form of searchable databases of all revenues and expenditures at many higher education institutions across the state.

Sharkey tabled the resolution until the board's April meeting, though she said she strongly supports what the legislation is seeking.

"I know there will be a lot of tweaking done," Sharkey said of the legislation, which is being considered at the Capitol. "This (delay) will give regents a chance to ask questions of their legislators, and at the April meeting, more information

will be available."

As initially proposed, HB 1252 only would have applied to CU, Colorado State University, the University of Northern Colorado and the Colorado School of Mines; before the bill advanced from the House Committee on Education to the House Appropriations Committee, it was amended to include all higher ed institutions that receive College Opportunity Fund money, therefore affecting several more four-year and two-year public and private institutions across the state.

The bill also stipulates that additional information on faculty members – such as number of classes taught, amount of grant money received, reimbursement amounts including travel – be provided in the database.

Kathleen Bollard, vice president for academic affairs, spoke during the meeting's public comment period, stressing she was speaking solely as an individual faculty member. She said CU faculty should be given time to comment on the proposal before the regents take an official position on the matter.

"Faculty have not had a chance to weigh in," she said. "Faculty salaries are already provided online. No other group of public employees is being asked to provide the level of detail (that this would require)."

Regent Irene Griego said she appreciated Sharkey's tabling of the resolution.

"This gives us time to get feedback … from our stakeholders, including our faculty," Griego said. "We need to know what this (database) is going to look like in practice. The span of work that our professors put in on a daily basis is not just teaching a class. It's service, research, preparation for class – there's a lot of work that goes into that."

Regent Tilman "Tillie" Bishop also said he appreciated the tabling, and that unknowns about the legislation need to be addressed, including the cost to the university of establishing and maintaining the expanded database, before he could state an opinion.

"We're looking for places to cut (expenses), not add," Bishop said. "The proposal that the database be updated every five business days – I don't know what that does to an already busy staff."

The board's next regular meeting is scheduled for April 18-19 at CU Denver.

Board of Regents honors visionaries for commitment, service[31]

At its Wednesday meeting, the University of Colorado Board of Regents unanimously approved the 2012 honorary degree, distinguished service and university medal award recipients.

Honorary Degrees:
Mohamed Al-Mady, engineering and business visionary responsible for the leadership and development of SABIC, the world's largest chemical company. Al-Mady is recognized as a pioneer in engineering management, including complex and capital-intensive implementation of multinational projects. (University of Colorado Boulder Awards Steering Committee.) **James L. Gallogly**, one of the world's top corporate executives in the oil and gas industry. Gallogly received his Bachelor of Arts degree from the University of Colorado Colorado Springs (UCCS) in 1974. His most recent gift to UCCS resulted in the school's new events center being named the Gallogly Events Center in honor of his father. (University of Colorado Colorado Springs Awards Steering Committee.)
Distinguished Service:
David C. Fajgenbaum, founder of a national organization of college students supporting college students grieving the illness of a loved one. After the death of his mother while he was at college, Fajgenbaum organized the Actively Moving Forward (AMF) support network. (CU-Boulder Awards Steering Committee.) **Kile Morgan Jr.,** a leader in the residential real estate industry and in his community. Morgan and his wife have given more than $3.6 million to scholarships and charitable organizations benefitting education, children and health. (CU-Boulder Awards Steering Committee.)

University Medal:
Susan Hagedorn, founding board member of the School of Public Affairs' Center on Domestic Violence at the University of Colorado Denver. A retiree from the College of Nursing at the University of Colorado Anschutz Medical Campus, Hagedorn has pledged $750,000 to support the Center on Domestic Violence. (University of Colorado Denver Awards Steering Committee.) **Margot Ladwig Lane,** longtime supporter of UCCS and its commitment to its students and health care. Lane and the John and Margot Lane Foundation have recently made a $4 million commitment for a UCCS center that will combine the education and research capabilities of the university with the medical and clinical services of a federally funded health care clinic. (UCCS Awards Steering Committee.) **Anna and John J. Sie,** committed $22 million to improve the lives of people with Down syndrome through research, education, clinical care and advocacy. The Sies established the Global Down Syndrome foundation (GDSF), which aims to raise an additional $12 million in support of this mission, the Linda Crnic Institute for Down Syndrome and the Anna and John J. Sie Center for Down Syndrome. (CU Denver/Anschutz Medical Campus Awards Steering Committee.) **George H. Solich,** a volunteeron committees and boards such as the CU Denver Business School Steering Committee; the Global Energy Management Program Advisory Council; and others. Financial support of CU includes gifts to the CU Boulder Basketball Practice Facility Fund, the Dal Ward and Football Coaches Office Renovation Fund, the CancerCure Fund at CU Anschutz Medical Campus and the CU Denver Business School Center for Commodities. (CU Denver Awards Steering Committee.)

Cox elected to distinguished engineering association[32]

Cox

Louis Anthony Cox Jr., Ph.D., a clinical professor at the Colorado School of Public Health at the University of Colorado Denver, recently was elected to the National Academy of Engineering's (NAE) distinguished membership association. Cox was one of 66 United States professionals and 10 foreign associates elected in 2012. Election to the NAE is among the highest professional distinctions accorded to an engineer and is based on an individual's outstanding contributions to the field. Cox was selected for his application of operations research and risk analysis to solving significant national problems.

"It is exciting and encouraging that the Academy recognizes that risk analysis and modeling can and should be contributors to solving vital national engineering challenges," Cox said.

When applied to engineering, public health methods such as risk analysis can better inform engineers of the probable health and safety consequences of different design choices and operating decisions. "Industrial engineering and operations research typically look at how best to design and operate complex man-made systems, using models about the causal relations between alternate choices and their probable consequences," Cox said. "Methods of public health analytics, such as biostatistics, bioinformatics, and epidemiology can greatly clarify these causal relations."

According to Cox, risk analysis is most powerful when applied to decision and policy-making problems, such as reducing occupational health risks from energy production, or for determining how best to position antibiotics and allocate resources to reduce risks from bioterrorist attacks.

Cox, who is the president of Cox Associates, Denver, holds a faculty appointment in the school's Department of Biostatistics and Informatics. The NAE is a private, independent, nonprofit institution that provides engineering leadership in service to the United States.

Search under way for next VP, University Counsel, Secretary of Regents[34]

A search committee has begun its work in helping to identify the university's next Vice President, University Counsel

and Secretary of the Board of Regents, a combined position currently held by Dan Wilkerson.

Wilkerson last year announced his intention to retire later this year.

The 10-member committee, co-chaired by Regent Michael Carrigan and Leonard Dinegar, Senior Vice President and Chief of Staff, met for the first time last week. Other members of the committee: Regent Steve Bosley; Colorado Attorney General John Suthers; John McDowell, D.D.S., School of Dental Medicine; Louise Vale, director, Office of Internal Audit; Ajay Thomas, Intercampus Student Forum Chair; Patty Powell, University of Denver Sturm College of Law; Rebecca Love Kourlis, University of Denver Institute for the Advancement of the American Legal System; and Matthew Ramirez, Wood and Ramirez Law Firm. Ex-officio staff members are Lisa Landis, human resource director; and Wynn Pericak, search committee coordinator.

The committee is seeking Colorado attorneys with significant experience representing higher education institutions and/or governmental entities. Internal candidates are preferred.

Applications for the position are due March 26 via Jobs at CU[35]. The committee will select between five and eight candidates to interview at the end of the month; three or four of those will be forwarded to the Board of Regents for consideration.

The regents will determine a finalist or finalists to interview. The regents, in consultation with President Bruce Benson, will elect the new Vice President, University Counsel and Secretary of the Board. The position has a dual report, to the University of Colorado President and to the Board of Regents.

In the proposed timeline, Wilkerson is scheduled to work with the new appointee during a transition period in May, with June 1 set as the target date for the new appointee's official start.

Faculty, grad students take part in communication conference[36]

Faculty and eight graduate students from the University of Colorado Denver Communication Department participated at the annual meeting of the Western States Communication Association (WSCA) in Albuquerque, N.M., in February. Among the conference highlights:

Brian L. Ott, associate chair, became the organization's president-elect. He will plan the 2013 conference in Reno, Nev. His convention theme is "Going Global: Communication in the Network Era." **Stephen John Hartnett**, department chair, received the inaugural 2012 WSCA Distinguished Teaching Award in recognition of more than two and a half decades of excellence in teaching. In the words of one of his nominators, "He is a dedicated, enthusiastic, and innovative teacher whose pedagogical practices inspire students to merge their intellectual, political, and creative energies in ways that produce active citizens."

WSCA recognized the lifetime research accomplishments of Professor **Sonja K. Foss** during a special panel honoring her selection as the 2011 WSCA Scholar. As the immediate past president of WSCA observed, she has "changed the way members of WSCA —and communication scholars more broadly— think about communication." Foss is "not only among the first generation of voices to contribute to scholarship on visual and feminist rhetorics, but she is also one of the most influential."

In addition, CLAS Associate Dean **Brenda J. Allen** was featured as part of a WSCA Master Teacher panel, and MA alumna **Elizabeth Brunner**, now a PhD student at the University of Utah, received a top debut paper award for an essay she wrote as part of her MA coursework at CU Denver.

Dropping names …[37]

Horton

Sirotnak

Martinez

Riel-Salvatore

David Schmidt, professor emeritus, College of Engineering and Applied Science at the University of Colorado Colorado Springs, will speak at an invited session of the American Institute of Aeronautics and Astronautics conference Aug. 13-16 in Minneapolis. The session is titled “Atmosphere Flight Mechanics Most Influential Papers of the 1980s.” A paper written by Schmidt and Marty Waszak, while Schmidt was a member of the faculty at Purdue University and Waszak was a graduate student, was one of 18 selected from more than 1,500 considered for recognition as the most influential papers of their time. … Assistant Professor **Sarah Horton**, anthropology, College of Liberal Arts and Sciences at the University of Colorado Denver, has been chairing a task force for the Society for Medical Anthropology on Global Health Insurance Reform. The group has posted a statement that’s part of the Critical Anthropology of Global Health's "Take a Stand" initiative, in which the CAGH (a special interest group of the SMA) forms a task force to spark discussion among medical anthropologists on a particular issue of pressing global health concern. The task force is collecting statements on health insurance reforms in various regions across the globe, potentially creating an edited volume from the statements, and organizing conference panels. Assistant Research Professor **Jean Scandlyn**, anthropology and health and behavioral sciences, contributed one of the briefs cited. … **Adrew Sirotnak**, M.D., and professor of pediatrics, has been honored with the Kempe Professional Award. Among his many roles, Sirotnak serves as director of the Child Protection Team for the Kempe Center for the Prevention and Treatment of Child Abuse and Neglect. He’s also director of the Child Abuse and Neglect Fellowship Program, and president of the medical staff at Children's Hospital Colorado. Sirotnak will receive the award at the Kempe Foundation gala on April 21. … **Kelly Ping**, sports dietitian, Peak Nutrition Clinic, Beth-El College of Nursing and Health Sciences at the University of Colorado Colorado Springs, recently was selected as the Young Dietitian of the Year by the Colorado Dietetic Association. She is a 2011 UCCS graduate. Ping received the award March 3 at the Colorado Dietetic Association conference. … **Donna Martinez**, professor and chair of ethnic studies, College of Liberal Arts and Sciences has been selected to receive a 2012 Diversity & Excellence Grant in conjunction with the “University of Colorado Denver Summer Bridge Program.” Martinez also will deliver the keynote for the Civil Rights Bureau of Reclamation's Women's History Month session March 21. … **Julien Riel-Salvatore**, assistant professor of anthropology, presented a paper at the Tavola Rotonda sul Paleolitico Medio d’Italia (Roundtable on the Middle Paleolithic of Italy), at the Center for Ancient Mediterranean and Near Eastern Studies (CAMNES) of the Lorenzo de Medici Institute in Florence. The presentation is titled “Neanderthal mobility in the Italian peninsula in the Late Middle and Early Upper Paleolithic: Biogeographic and evolutionary perspectives.” His presentation (in Italian) can be seen here[42] (select the video “2a sessione mattino” and go to about the 46:20 mark).

PERA’s benefit calculation method spurs debate at Capitol[43]

[44]
A bill that would change the way retirement benefits are calculated for those who join the Public Employees Retirement Association (PERA) after Jan. 1, 2013, was given preliminary approval by the Colorado State House after a lengthy and partisan debate Friday.

Currently, benefits are calculated using the highest average salary from three years, but House Bill 12-1150 would increase the number of years used for the calculation to seven.

Last week's debate lasted about an hour. Republicans argued the change is needed to ensure PERA's future financial stability, while Democrats maintain the changes are unnecessary because of a 2010 law that revamped PERA.

Republicans say the bill would prevent "spiking" by employees who are paid high salaries later in their careers; Democrats say the bill punishes the average employee in order to potentially change the law for a few.

The bill awaits final approval in the House before it heads to the Democratic-controlled Senate, where it is expected to face a tough battle.

HB12-1150 is the first of several PERA bills to make it to a floor vote. Most of the bills have died in committee. Two bills are pending: HB 12-1142 would allow PERA members to enroll in the defined contribution plan instead of the defined benefit plan. Currently only new state and some new university employees may choose between the plans. HB 12-1179 would change the composition of PERA's Board of Trustees.

Contributions help pave high schoolers' path to college[45]

[46]

Thousands upon thousands of young men and women have successfully found their way to college and graduation thanks to the guidance of Danny Martinez, whose contributions to the University of Colorado Denver come from all angles: academic affairs, student affairs and philanthropy.

In 1972, Martinez earned a bachelor's degree in Spanish at CU Denver and was hired as director of an educational opportunity program that provided academic services to low-income, first-generation students. Since then, he has served in a variety of administrative and faculty positions, and his focus on student achievement has never wavered.

He helped found several programs on campus, but perhaps his heart is most entrenched in the CU Succeed program, which began in 1990. At the time, the high school dropout rate among minority students was extremely high and college attendance rates were extremely low.

"We came up with this idea that maybe if we provided students with inroads to college – gave them a taste of college life while they were still in high school -- that we might motivate more of them to go on," said Martinez, who is director of the program, although as a retiree, on a part-time basis. CU Succeed, which allows high school students to take college courses for transcript credits, was introduced in one high school – East – with 23 students enrolled in a course taught by a CU Denver faculty member. Of those students, 17 enrolled in college within a year. Five graduated from CU Denver and one went on to earn a master's degree.

It wasn't long before Martinez was asked to design something for the more advanced students who, as seniors, already had completed almost all of their high school requirements and needed to be challenged. In 1994, he established the CU Succeed Gold program.

"In the early years, when the program was smaller, I used to make my rounds to all the high schools and actually work with some of those kids to fill out applications for admission," he said. "They would come to this campus and I would end up being kind of their adviser and mentor for their first semester or two."

In its 21 years of existence, the program has had about 60,000 participants. This year alone, about 5,000 students in 92 schools are enrolled. Until about 10 years ago, Martinez said, CU Succeed was the only program of its kind in the nation; now, hundreds of programs have mimicked its structure.

Martinez began making monetary contributions to the program in 1999, when he became an administrator. “It was common practice for all officers, and my heart was in the program.”

Without financial support from the community, some university programs would not be able to thrive. “In most cases, programs are basically operating on the edge. We’ve been fortunate at CU Succeed because we generate revenue for the university and are still able to operate,” he said. “Philanthropy is a way in which the program can reach out to as many students as possible. It helps us to achieve our goal, which is to extend opportunities for higher education to all citizens of Colorado.”

The money Martinez regularly donates through payroll deduction, as well as gifts received from other donors such as the Schramm Foundation, goes directly to scholarships for “students who couldn’t otherwise afford to pay even our meager tuition.”

“I’m making a contribution on behalf of the university, but I’m also making a personal contribution to people who I know, who are actually receiving the benefit,” said Martinez, who believes he has financially supported at least 40 students through their college careers. He receives a charitable tax deduction, and using payroll deduction has made the process simple. “It’s easy to forget to send a check every month or every quarter, but this arrangement is easy and automatic. I don’t even have to think about it.”

For information on making a charitable payroll deduction toward a CU program of your choosing, visit http://www.cufund.org/guide-to-giving/information-for/faculty-staf/[47]. Estate gifts also provide a critical pipeline of support — for more information on bequests and other planned gifts, go to http://www.cufund.org/guide-to-giving/information-for/planned-giving/[48].

About Philanthropy at Work: Faculty and staff efforts are the heart and soul of CU — and the inspiration for donors who are helping to achieve goals for the Creating Futures fundraising campaign. Philanthropy from faculty and staff also has made a substantial impact — increasing resources, recognition and goodwill for myriad programs, and underscoring why CU’s work is worth supporting.

This series features faculty and staff who have made gifts to CU. To suggest a subject, please contact jeremy.simon@cufund.org[49]

Five questions for Erin Foster[50]

[51]
The longer Erin Foster spends at the University of Colorado, the stronger the connection becomes. After earning a bachelor’s of science degree in accounting at the Leeds School of Business, she decided to pursue a position as a staff member.

“I fell in love with the University of Colorado and my husband (Brian, an Army Ranger) was getting ready to deploy again, so I wanted to have a place where I felt comfortable and happy and I wanted to further my education and pursue a master’s,” she says.

In 2008, she began working in the Bursar’s Office in the student billing department, then moved to the communications department two years ago. Her primary focus is communicating with students about their financial information and the financial education program.

The university's tuition benefit program offered Foster a chance to earn an advanced degree without borrowing money and going into debt. And working at CU helped her stay busy while her husband spent another year in northern Iraq.

Her work also led to her current research: studying the long-term impact of Colorado high school financial education programs on CU retention and graduation rates.

Her husband was away for the first half of their marriage. When he finished with active duty in 2010, Erin said she felt relief. "Then he promptly joined the active reserves. I was thankful that he had joined the reserves in Colorado and was stationed in Hawaii."

In October 2011, Brian ended his service with the active reserves. "It's been a transition," she says. "I got so used to my autonomy and I could study until 1 a.m. Now he says, 'Are you going to study more?' It will be nice when I wrap this up and graduate in May."

1. Why did you choose to pursue your master's degree in public administration?

I started my master's program about six months after I began work as a staff member and had a choice between an MBA and an MPA. Since I had already done the coursework for my B.S. in accounting, I felt like I had a good grasp on finances and financial information and business management and wanted to learn more about management in the public sector. I decided that since I was working for a public institution and enjoying it, the MPA would be the best choice for me. I'm also interested in public policy.

2. How has the tuition benefit program helped you?

I could use the benefit on any campus and Boulder doesn't offer a degree in public administration, so I took classes through the University of Colorado Colorado Springs campus. I live in Longmont, and the cool part about tuition assistance is that many programs allow staff members to take classes online. About 80 percent of my coursework has been completed online, which really is helpful with a 40-hour-a-week work schedule. I also took a few classes that the School of Public Affairs offers that are hybrid weekend classes, so you attend from 5 to 10 at night on Friday and then on Saturday. Those meet three to five times a semester.

I took one class in the spring of 2009: I dipped my toe in the pool to see if I liked it. I did go slower through the program than I wanted to because with the tuition benefit, you can only use nine credit hours per year, plus there were the normal constraints of working full-time and trying to go to school full-time. I also was able to get a few scholarships to pay for additional classes. But the fact that employees can take classes for fun is one of our best benefits.

3. You were nominated last September to be a participant in the University Perspective Program[52]. What have you learned so far?

I participate in the eight-month program with about two dozen other people. We've had opportunities to meet with campus leadership – chancellors and vice chancellors – and leadership from the Boulder community, in this case the Boulder city manager. In addition, we met with system administration two weeks ago, which was fascinating, and we've been able to tour the other campuses. It's a great way to see what CU Denver and UCCS has to offer. My mom actually was born at Fitzsimons. We used to drive by there and it was very army barracks-looking. Cut to 20 years later and it's now a cutting-edge medical research hospital. The program gives you a great perspective of the university as a whole.

4. Are you involved in other university community activities?

I learned about CU Advocates[53] when I visited the president's office and was intrigued by the program. Obviously, I really like CU and I thought by joining the advocates I could learn better ways to effectively promote CU. For instance, if someone asks me about why our tuition rates are set the way they are, I'll be able to have a more articulate way to engage in that conversation.

I've been on Boulder Staff Council[54] for a year and am on the communications committee. I'm only able to serve on

one committee because I'm involved in so many other things. I enjoy being part of the CU community.

5. How did you develop the theory for your graduate research that there is a possible link between financial education and college graduation rates and what do you hope to achieve with this research?

As part of the financial education program that we have at CU, I was doing research about how to reach students and give them useful information. I ran across an article written by a registrar at Seattle University that talked about how more students drop out of college because of financial problems than academic problems. That really surprised me. That was a year ago and it no longer surprises me. Saving rates are low; parents are losing their jobs or borrowing against their retirement to put their children through school. Obviously tuition rates are going up, and student loan policies are becoming more restrictive and there's less funding available, so finances will play a huge role in college retention rates. I wanted to look at CU's data on retention rate or separation rate, but there really wasn't anything. I went to the people at College Invest and asked about the data they have on CU, about those who come to CU and leave or those that take longer than six years to complete a degree.

I'm in the middle of going through the data and looking at the link between retention rates and students who have participated in some type of financial education program, whether it be exposure to financial literacy in high school or a finance class in college, and comparing those numbers to the general population.

At CU, and this comes from my boss, we would love to see a required course built into the curriculum on personal finance. If you think about it, if we were able to keep 10 more out-of-state students for an extra year, that's an extra $140,000 in tuition revenues. Those are big numbers. And it's a life skill and we're not doing anyone a disservice by teaching them about finances.

An auspicious time for teaching and learning[55]

[56]
It wasn't until he became a dean of the School of Medicine in 1990 that Richard Krugman, M.D.[57], realized that not all people are like pediatricians.

"My father was a pediatrician ... I came out here to work in the Department of Pediatrics (in the CU School of Medicine [58]), where I spent 17 years on the faculty, and then I became acting dean," Krugman told an audience Friday morning at the President's Teaching Scholars Program[59] (PTSP) Spring Conference on Learning and Teaching on the Anschutz Medical Campus.

More than 100 faculty members from all University of Colorado campuses attended the fourth annual PTSP conference. The daylong session featured a variety of speakers, panels and interactive activities focused on improving learning and teaching.

The broadening of the world when Krugman became dean illustrates the kind of reawakening that anyone in academia can experience.

"Leaders and others like teachers are sometimes born that way, but it is possible to be born again in education," he said during his talk titled "Reflections on the Growth and Development of an Educator." "If one keeps an open mind and has the flexibility to be able to learn -- that really is the core of what we're doing here."

During his long career at the CU School of Medicine, Krugman said he's had opportunities to go elsewhere, but he recognized that he could have several careers at one place. He said what's mattered to his career are: family support, mentors, opportunities (take them when they come), and flexibility.

On the latter, Krugman said Ray Helfer, a fellow CU faculty member, once told him that other people don't create problems in your job. "The job is problems, and all jobs have them. And our job is actually you either solve them or help

people solve them. Or sometimes, when you can't, it's better to just say we can't solve it, move on, we'll try again next year."

Krugman is currently Vice Chancellor for Health Affairs and the Dean of the School of Medicine.

"I think one has to recognize where one can work, and where the joy is," he said. He's enjoyed watching the transformation of the medical campus over 20 years. "Ultimately, academic administration is about providing faculty, staff and students the opportunity to do what they do best and that means you've got to provide space and resources."

Krugman said that when he came to the university in the 1970s there wasn't any training on how to teach. Times have changed for the better, he said, adding that today "our trainees need and should have the best teachers, the best educators they can. God knows they are paying more and more for it."

In one breakout session, Jessica Campbell and Rachel Swigris, both assistant professors on the Anschutz Medical Campus, explained how they are incorporating mindfulness -- awareness of your physical, mental, spiritual and emotional being -- into their work. Campbell got the room to take part in yoga poses, while both professors talked about ways to reduce stress, increase energy and enhance meaningfulness in your life.

In terms of teaching, Swigris said, "the more detailed you can be in compliments, the more gratitude you show ... the more valued (your students) feel. When people feel valued, they have more energy."

Mary Ann Shea, director of the PTSP, said these are fast-changing and auspicious times in education, requiring innovative ways to teach.

"Faculty members have to ... renew a curiosity for how to become the best teacher they can be and how to create learning environments for students who are so different from us," she said. "We didn't study and learn in education the way students do now."

CU graduate programs earn high marks in national report[60]

Graduate programs across the University of Colorado system continue to earn national prominence based on the latest annual rankings from U.S. News & World Report. Schools and programs at the four CU campuses notch 28 mentions in the 2013 edition of Best Graduate Schools[61] (U.S. News Media Group), including 10 ranked in the top 10 of their fields.

CU's 2013 rankings are:

University of Colorado Boulder
No. 1: CU-Boulder retains top honors for the atomic/molecular/optical physics program, tied with the Massachusetts Institute of Technology. **Top 10:** Other CU-Boulder programs ranking in the top 10 nationally are environmental sciences (fifth), quantum physics (fifth), environmental law (fifth) and physical chemistry (eighth). Some 11 other CU-Boulder schools and programs land on the national rankings within their fields: clinical psychology (18), physics (19), earth sciences (23), chemistry (26), psychology (29), biological sciences (30), College of Engineering and Applied Science (35), School of Education (38), computer science (39), School of Law (44) and Leeds School of Business (47 for part-time MBA schools).
University of Colorado Anschutz Medical Campus
School of Medicine
Top 10: The school ranks fifth nationally for primary care, with the specialties of family medicine (third), pediatrics (fifth) and rural medicine (seventh) also ranking high. Within the nursing program (15th), the pediatric nurse practitioner program ranks fifth; family nurse practitioner, 16th. Nursing also made the top five honor roll list of online options. The School of Medicine ranks 35th overall for research. The physician assistant program ranks at 11.
University of Colorado Denver

The School of Public Affairs, with programs at CU Denver and the University of Colorado Colorado Springs, is listed at 29 nationally. CU Denver also notches recognition for its School of Education (100).

University of Colorado Colorado Springs

UCCS shares the School of Public Affairs (29) honor with CU Denver.

The 2013 Best Graduate Schools includes essential, detailed statistical information on more than 1,200 programs nationwide, with rankings in five of the largest professional graduate school disciplines (business[62], law[63], education[64], engineering[65], and medicine[66]). Highlights of the rankings will be published in the Best Graduate Schools 2013 edition guidebook, available April 3, 2012.

Rankings are based on two types of data: expert opinions about program quality, and statistical indicators that measure the quality of a school's faculty, research and students. These data come from surveys of more than 1,200 programs and some 12,400 academics and professionals. The publication aims to provide a tool to students and parents who are comparing college programs at accredited public and private universities in the United States.

Links

[1] https://connections.cu.edu/stories/cu-nist-%E2%80%98star-comb%E2%80%99-joins-quest-earth-planets[2] https://connections.cu.edu/sites/default/files/wp-content/uploads/2012/03/c_ucb-starcomb-p1.png[3] http://www.opticsinfobase.org/oe/home.cfm[4] http://www.nist.gov/pml/div688/comb-030612.cfm[5] https://connections.cu.edu/stories/regents-examine-revised-tuition-proposals-vote-expected-april[6] https://connections.cu.edu/sites/default/files/wp-content/uploads/2012/03/tutition-poreca.png[7] https://connections.cu.edu/stories/florida-math-professor-lead-college-letters-arts-and-sciences[8] https://connections.cu.edu/sites/default/files/wp-content/uploads/2012/03/uccs_braza.png[9] https://connections.cu.edu/stories/procurement-open-house-next-week[10] http://www.cu.edu/psc/[11] mailto:Charlene.Lydick@cu.edu[12] mailto:Michael.Fox@cu.edu[13] https://connections.cu.edu/stories/new-sunscreen-regulations-designed-protect-skin-cancer-causing-rays[14] http://www.fda.gov/[15] http://www.ucdenver.edu/academics/colleges/medicalschool/centers/cancercenter/Pages/CancerCenter.aspx[16] https://connections.cu.edu/stories/staff-council-focuses-upcoming-election-benefits-update-open-house[17] https://connections.cu.edu/sites/default/files/wp-content/uploads/2012/03/c_ucd-staff-cncl.png[18] http://www.ucdenver.edu/faculty_staff/employees/StaffCouncil/Pages/default.aspx[19] http://www.ucdenver.edu/faculty_staff/employees/StaffCouncil/Members/Pages/default.aspx[20] http://www.ucdenver.edu/faculty_staff/employees/StaffCouncil/Documents/SCElections.pdf[21] http://www.slccolorado.org/[22] https://www.cu.edu/content/chiefhumanresourcesofficerandseniorassociatevicepresident[23] http://www.cu.edu/policies[24] https://www.cu.edu/governmentrelations[25] http://www.ucdenver.edu/faculty_staff/employees/StaffCouncil/linksofinterest/Pages/default.aspx[26] https://connections.cu.edu/people/hirsch-receives-major-award-national-cancer-institute[27] https://connections.cu.edu/sites/default/files/wp-content/uploads/2012/03/p_Hirsch.png[28] https://connections.cu.edu/people/sands-named-carnegie-project[29] https://connections.cu.edu/sites/default/files/wp-content/uploads/2012/03/p_sands1.png[30] https://connections.cu.edu/stories/regents-delay-taking-official-stand-state-transparency-legislation[31] https://connections.cu.edu/stories/board-regents-honors-visionaries-commitment-service[32] https://connections.cu.edu/people/cox-elected-distinguished-engineering-association[33] https://connections.cu.edu/sites/default/files/wp-content/uploads/2012/03/p_Cox.jpg[34] https://connections.cu.edu/stories/search-under-way-next-vp-university-counsel-secretary-regents[35] https://www.jobsatcu.com/applicants/jsp/shared/Welcome_css.jsp[36] https://connections.cu.edu/people/faculty-grad-students-take-part-communication-conference[37] https://connections.cu.edu/people/dropping-names-131[38] https://connections.cu.edu/sites/default/files/wp-content/uploads/2012/03/SarahHorton_150w1.jpg[39] https://connections.cu.edu/sites/default/files/wp-content/uploads/2012/03/p_Sirotnak.png[40] https://connections.cu.edu/sites/default/files/wp-content/uploads/2012/03/p_martinez.png[41] https://connections.cu.edu/sites/default/files/wp-content/uploads/2012/03/p_riel-salvatore.png[42] http://camnes.org/camnes-live[43] https://connections.cu.edu/stories/pera%E2%80%99s-benefit-calculation-method-

spurs-debate-capitol[44] https://connections.cu.edu/wp-content/uploads/2012/03/pera_page.png[45] https://connections.cu.edu/stories/contributions-help-pave-high-schoolers%E2%80%99-path-college[46] https://connections.cu.edu/sites/default/files/wp-content/uploads/2012/03/contributions_matinez-p.png[47] http://www.cufund.org/guide-to-giving/information-for/faculty-staf/[48] http://www.cufund.org/guide-to-giving/information-for/planned-giving/[49] mailto:jeremy.simon@cufund.org[50] https://connections.cu.edu/stories/five-questions-erin-foster[51] https://connections.cu.edu/sites/default/files/wp-content/uploads/2012/03/5q-foster.png[52] http://hr.colorado.edu/training/cp/up/Pages/default.aspx[53] https://www.cusys.edu/cuadvocates/[54] http://www.colorado.edu/StaffCouncil/[55] https://connections.cu.edu/stories/auspicious-time-teaching-and-learning[56] https://connections.cu.edu/sites/default/files/wp-content/uploads/2012/03/teaching-learning-krug.png[57]

[58] http://www.ucdenver.edu/academics/colleges/medicalschool/Pages/somWelcome.aspx[59] http://www.colorado.edu/ptsp/[60] https://connections.cu.edu/stories/cu-graduate-programs-earn-high-marks-national-report[61] http://www.usnews.com/grad[62] http://grad-schools.usnews.rankingsandreviews.com/best-graduate-schools/top-business-schools[63] http://grad-schools.usnews.rankingsandreviews.com/best-graduate-schools/top-law-schools[64] http://grad-schools.usnews.rankingsandreviews.com/best-graduate-schools/top-education-schools[65] http://grad-schools.usnews.rankingsandreviews.com/best-graduate-schools/top-engineering-schools[66] http://grad-schools.usnews.rankingsandreviews.com/best-graduate-schools/top-medical-schools