2018
Faculty Achievements and Activities
College of Science

Awards and Honors

Alston, Diane G

Entomological Society of America MS Student Paper Competition, Entomological Society of America, (November 2018).

Entomological Society of America PhD Student Poster Competition, Entomological Society of America, (November 2018).

Excellence in Multistate Research Award, Western Association of Agricultural Experiment Station Directors, (July 2018).

Pacific Branch of the Entomological Society of America Student Poster Competition Award, Pacific Branch of the Entomological Society, (June 2018).

Ault, Alexis

Chuck and Nancy Naesar Prize, Early Career Award, International Standing Committee on Thermochronology, (September 2018).

Researcher of the Year, College of Science, (April 2018).

Berreau, Lisa M.

Sunrise Session Speaker, Utah State University, (February 2018).

Dehler, Carol Merritt

Research Fellow, Geological Society of America, (August 2018).

Undergraduate Research Mentor of the Year, College of Science, USU, (January 2018).

Hadfield, KimberLeigh Felix

The Utah Statesman 50 Most Influential Aggies: Top 10 Faculty, The Utah Statesman, (April 2018).

Huntly, Nancy J

Fellow, Ecological Society of America, (2018).

Larsen, Blair C.

Planetary Thinking in the Curriculum Grant, Utah State University, (April 2018).

Liu, Tianbiao

Chemical Communications Emerging Investigator, Royal Chemical Society, (2018).

Scialog Fellow on Advanced Energy Storage, Research Corporation on Science Advancement, (2018).

Innovative Challenge Award, 2018 Defense TechConnect Summit, (October 2018).

2018
Faculty Achievements and Activities
College of Science

Lucas, Lauren K

ETE10 badges, AIS, (2018).

Faculty Teacher of the Year nominee, (December 2018).

Malmendier, Andreas

NSA Conference Grant, H98230-18-1-0285, PI, National Security Agency, (2018).

Distinguished Capstone Mentor Award, USU Capstone Program, (May 2018).

Mentor of the Year Award, USU Department of Mathematics and Statistics, (May 2018).

Nie, Zhaohu

Department Researcher of the Year, Department of Mathematics & Statistics, Utah State University, (April 2018).

Peak, David

Escort for K.J. Sweet, 2018 Valedictorian for College of Science, USU College of Science, (May 2018).

Council on Undergraduate Research-Goldwater Scholars Faculty Mentor Award, CUR - Goldwater Scholarship Foundation, (March 2018).

Invited Presenter, Science Unwrapped, USU College of Science, (March 2018).

Rao, Yi

Honda Research Institute (HRI) Excellent Collaboration Award 2018, Honda Research Institute, (May 2018).

Rittenour, Tammy M

Invited Review Paper, Special Issue of Elements, (2018).

Nominated to US National Committee for Quaternary Research, National Academy of Sciences, (November 2018).

Fellow, Geological Society of America, (October 2018).

Kirk Bryan Award, Geological Society of America, (October 2018).

Spears, Lori Rena

New Extension Specialist Award, USU Extension Specialists Association, (2018).

Wheeler, Gregory D

2018 Eldon J. Gardner Teacher of the Year, Utah State University, (April 2018).

2018 College of Science Teacher of the Year, USU College of Science, (March 2018).

Wolf, Paul G

Robbins Award University Service, (May 2018).

College of Science University Service Award, College of Science, (April 2018).

JSE OUTSTANDING PAPER, Journal of Systematics and Evolution, (March 2018).

Creative Works, Performances, Exhibitions and Activities

Adjudications, Master Classes/Clinics and Other Appearances

Watson, Claire

Music - Master Class/Clinic - Visit to Music Class, Masterpieces of Music, February 2018.

Publications/Intellectual Contributions

Performances in Publications

Malmendier, Andreas

Elliptic fibrations on K3 surfaces with large Picard rank, (2018).

K3 surfaces of high Picard rank, (2018).

Ramirez, Ricardo A

Exotic Bee ID, (September 2018).

Spears, Lori Rena

Exotic Bee ID, (September 2018).

Abstract

Lachmar, Thomas

Mountain-block recharge from alpine karst, (May 2018), Geological Society of America.

Ramirez, Ricardo A

Insecticide efficacy in controlling aphid complex in alfalfa, (October 2018), Proceedings of the National Society of County Agricultural Agents Western Region Professional Improvement Conference, 2018.

Insecticide efficacy in controlling alfalfa aphid complex, (June 2018), Proceedings of the Utah Association of County Agricultural Agents, 2018, 6.

Pesticide efficacy in controlling alfalfa aphid complex, (June 2018), Proceedings of the Annual Summer Meeting and Tour of the Utah Association of County Agricultural Agents.

Stevens, John R

Effects of lactation and negative energy balance on endometrial expression of selected transcripts of Holstein dairy cows at day 7, (December 2018), Journal of Animal Science, 96, 177-177.

Book, Chapter in Scholarly Book

Davies, Robert Edward

Earth's Changing Climate: A Community Primer, (July 2018), Routledge.

Huntly, Nancy J

Southwest, (November 2018), U.S. Global Change Research Program, 1101-1184.

Nischwitz, Claudia

Plant Parasitic Nematodes and Their Economic Relevance in Utah and Nevada, (October (4th Quarter/Autumn) 1, 2018), Springer Verlag, 1.

Plant Parasitic Nematodes of New Mexico and Arizona, (October (4th Quarter/Autumn) 1, 2018), Springer Verlag, 1, 113-130.

Pearse, William David

The Use of EDGE (Evolutionary Distinct Globally Endangered) and EDGE-Like Metrics to Evaluate Taxa for Conservation, (2018), Springer, Cham, 27--39.

Powell, James A

Effects of Climate Change on Ecological Disturbance in the Northern Rockies, (2018), Springer International Publishing, 115-141.

Shervais, John W

Expedition 366 Methods, (February 2018), International Ocean Discovery Program.

Expedition 366 Summary, (February 2018), International Ocean Discovery Program.

Site 1200, (February 2018), International Ocean Discovery Program.

Site U1491, (February 2018), International Ocean Discovery Program.

Site U1492, (February 2018), International Ocean Discovery Program.

Site U1496, (February 2018), International Ocean Discovery Program.

Site U1497, (February 2018), International Ocean Discovery Program.

Site U1498, (February 2018), International Ocean Discovery Program.

Sites U1493, U1494, and U1495, (February 2018), International Ocean Discovery Program.

Sojka, Jan Josef

Locations Where Space Weather Energy Impacts the Atmosphere, (2018), Springer Nature B.V.

Symanzik, Juergen

Heatmap and Hierarchical Clustering Analysis to Highlight Changes in Young Children's Developmental Progressions Using Virtual Manipulative Mathematics Apps, (2018), Springer, Cham, 167-187.

Book, Textbook-New

Riffe, David Mark

Newton, Lagrange, and Hamilton: A Course in Particle Mechanics, (2018).

Torre, Charles Gregory

What is a Photon? Foundations of Quantum Field Theory, (June 2018).

Book, Textbook-Revised

Dennison, John Robert

Introduction to Scientific Computing: On-Line Edition, Ver. 5.1, (December 2018), digitalcommons.usu.edu.

Bulletin-Other

Adams, Brett

Evaluation for Faculty of 1000 (number 68), (March 2018), Faculty of 1000 Ltd.

Conference Proceeding

Dennison, John Robert

Effects of Sample Adhesives Acoustic Properties on Spatial Resolution of Pulsed Electroacoustic Measurements, (2018), 267-270.

Long-term Stability in GEO-simulated Environment of Space Polymers Treated by Ion-beam Techniques, (October 2018), Proceedings of 12th International Conference on Protection of Materials from Space Environment (ICPMSE).

Comparison of Models for Materials Parameters Used in Spacecraft Charging Codes, (June 2018), 15th Spacecraft Charging Technology Conference.

Electron Range Computational Tool for Arbitrary Materials over a Wide Energy Range, (June 2018), 15th Spacecraft Charging Technology Conference.

Secondary Electron Yield Measurements of Carbon Nanotube Forests: Dependence on Morphology and Substrate, (June 2018), 15th Spacecraft Charging Technology Conference.

Secondary Electron Yield Measurements of Carbon Nanotube Forests: Dependence on Morphology and Substrate, (June 2018), 15th Spacecraft Charging Technology Conference.

Time-Evolved Constant Voltage Conductivity Measurements of Common Spaceborne Polymeric Materials, (June 2018), 15th Spacecraft Charging Technology Conference.

Wireless Detection of Electrostatic Discharge Events, (June 2018), 15th Spacecraft Charging Technology Conference.

Electron Range Model, (May 2018), Utah NASA Space Grant Consortium.

Kohler, Brynja R

Did They Learn Anything? -- Learning Assessment in an Introductory Business Analytics Course, (2018), Decision Sciences Institute 2018 Proceedings, 561-569.

Moon, Kevin R

Direct Ensemble Estimation of Density Functionals, (April 2018), 2866-2870.

Schneiter, Kady

Using Personal Activity Data in an Undergraduate Statistics Course, (2018), Proceedings of the 10th International Conference on the Teaching of Statistics (ICOTS10).

Shen, Tsung-Cheng

Secondary Electron Yield Measurements of Carbon Nanotube Forests: Dependence on Morphology and Substrate, (June 2018), 15th Spacecraft Charging Technology Conference.

Secondary Electron Yield Measurements of Carbon Nanotube Forests: Dependence on Morphology and Substrate, (June 2018), 15th Spacecraft Charging Technology Conference.

Symanzik, Juergen

Eye-Tracking in Practice: Results from a Study on Human Postures, (2018), 2018 JSM Proceedings.

Let's Talk About the Weather, (2018), 2018 JSM Proceedings.

Takemoto, Jon Y

Mechanisms of Mesobiliverdin Against Oxidative Stress in Retinal Cells, (February 2018), American Chemical Society (Pittsburg Section).

Fact Sheet-Extension

Alston, Diane G

Redberry Mite on Blackberry, (December 2018), Utah State University Fact Sheet, 1-3.

A New Utah Forest Insect Pest: Balsam Wooly Adelgid, (2018).

An Alternate Method for Setting Codling Moth Biofix, (October 2018), Utah State University Extension and Utah Plant Pest Diagnostic Laboratory, ENT-202-18, 1-4.

European Cherry Fruit Fly [*Rhagoletis cerasi* (Linnaeus)], (October 2018), Utah State University Extension and Utah Plant Pest Diagnostic Laboratory.

Brown Marmorated Stink Bug Management for Fruits and Vegetables in Utah, (August 2018), Utah State University Extension and Utah Plant Pest Diagnostic Laboratory.

Leafminers of Vegetable Crops, (August 2018), Utah State University Extension and Utah Plant Pest Diagnostic Laboratory, ENT-195-18, 1-5.

Strategies for Managing Soil Fertility and Health in Organic Orchards, (July 2018), Utah State University Extension.

A New Utah Forest Insect Pest: Balsam Woolly Adelgid, (May 2018), Utah Forest Facts.

Balsam Woolly Adelgid: Advanced Fact Sheet, (March 2018), Utah Plant Pest Diagnostic Laboratory and Utah State University Extension, ENT-191-18, 7 pp.

Balsam Woolly Adelgid: Basic Fact Sheet, (March 2018), Utah Plant Pest Diagnostic Laboratory and Utah State University Extension, ENT-190-18, 4 pp..

Nischwitz, Claudia

Redberry Mite on Blackberry, (December 2018), Utah State University Fact Sheet, 1-3.

Fire Blight of Pears and Apples, (2018), Utah State University Extension.

Spears, Lori Rena

European Cherry Fruit Fly [*Rhagoletis cerasi* (Linnaeus)], (October 2018), Utah State University Extension and Utah Plant Pest Diagnostic Laboratory.

Brown Marmorated Stink Bug Management for Fruits and Vegetables in Utah, (August 2018), Utah State University Extension and Utah Plant Pest Diagnostic Laboratory.

Small Hive Beetle [*Aethina tumida* (Murray)], (June 2018), Utah State University Extension and Utah Plant Pest Diagnostic Laboratory.

Balsam Woolly Adelgid: Advanced Fact Sheet, (March 2018), Utah Plant Pest Diagnostic Laboratory and Utah State University Extension, ENT-191-18, 7 pp.

Balsam Woolly Adelgid: Basic Fact Sheet, (March 2018), Utah Plant Pest Diagnostic Laboratory and Utah State University Extension, ENT-190-18, 4 pp.

Guide/Manual-Extension

Alston, Diane G

Utah Vegetable Production and Pest Management Guide 2018, (March 2018), Utah State University Extension, 250 pp.

Nischwitz, Claudia

Utah Vegetable Production and Pest Management Guide 2018, (March 2018), Utah State University Extension, 250 pp.

2018
Faculty Achievements and Activities
College of Science

Journal Article, Academic Journal

Antony, Edwin

Energy transduction in nitrogenase, (2018), Acc. Chem. Res., 51, 2179-2186.

Ault, Alexis

Hematite (U-Th)/He thermochronometry constrains strike-slip faulting on the Kuh-e-Faghan fault, central Iran, (2018), Tectonophysics, 728-729, 41-54.

Single-crystal hematite (U-Th)/He dates and fluid inclusions document widespread Cryogenian sand injection in crystalline basement, (2018), Earth and Planetary Science Letters, 500, 145-155.

Thermochronology links denudation of the Great Unconformity surface to the supercontinent cycle and snowball Earth, (2018), Geology, 46, 167-170.

Zircon selection reveals (de)coupled metamictization, radiation damage, and He diffusivity, (2018), Chemical Geology, 490, 1-12.

Baker, Michelle A

Measuring and visualizing research collaboration and productivity, (March 2018), Journal of Data and Information Science, 3, 54-81.

Beckman, Noelle Gabriele

Environment and past land-use together predict functional diversity in a temperate forest, (September 2018), Ecological Applications.

Seedscapades in seedscapes: The arising researcher, (June 2018), Bulletin Ecological Society of America, 99, 311–312.

High dispersal ability is related to fast life history strategies, (June 2018), Journal of Ecology, 106, 1349–1362.

Berreau, Lisa M.

A visible light-activated quinolone carbon monoxide-releasing molecule: Prodrug and albumin-assisted delivery enable anti-cancer and potent anti-inflammatory effects, (July 2018), Journal of the American Chemical Society, 140, 9721–9729.

Mitochondrial-localized versus cytosolic intracellular CO-releasing organic photoCORMs: Evaluation of CO effects using bioenergetics, (June 2018), ACS Chemical Biology.

Bobeck, Erin Nicole

The contribution of the descending pain modulatory pathway in opioid tolerance, (November 2018), Frontiers in Neuroscience, 12, 886.

Enhanced antinociception with repeated microinjections of apomorphine into the periaqueductal gray of male and female rats. (April 2018), Behavioural Pharmacology.

2018
Faculty Achievements and Activities
College of Science

Boldyrev, Alexander I.

Metalcarbonyl analogues of annelated cyclooctatetraene and cyclodecapentaene derivatives with a planar core cycle: a quantum chemical study, (October 2018), Physical Chemistry Chemical Physics, 20.

The structurally variable network of spin couplings and migrating paramagnetic centers in binuclear o-quinone CoII complexes with biradical acene linkers: a computational DFT study, (October 2018), Dalton Transaction, 47, 15948–15956.

Insight into the nature of rim bonds in Coronene, (October (4th Quarter/Autumn) 8, 2018), The Journal of Physical Chemistry A, 122, 8585-8590.

Symmetry reduction upon size mismatch: The non-icosahedral intermetalloid cluster $[Co@Ge_{12}]^{3-}$, (September 2018), Chinese Journal of Chemistry, 36, 1165-1168.

Realization of an Al≡Al triple bond in the gas-phase Na_3Al^{2-} cluster via double electronic transmutation, (August 2018), Angewandte Chemie International Edition, 57, 14060-14064.

Aromaticity and antiaromaticity in zintl clusters, (May 2018), Chemistry - A European Journal.

Multicenter bonding effects in Oxygen vacancy in the bulk and on the surface of MgO, (May 2018), The Journal of Physical Chemistry C.

Magnetic properties of acenes and their o-quinone derivatives: Computer simulation, (April 2018), Doklady Chemistry, 478, 21-25.

Tug-of-war between classical and multicenter bonds in H-(Be)n-H species, (March 2018), Chemical Physics Letters, 699.

Electronic transmutation (ET): Chemically turning one element into another, (March 8, 2018), Chemistry - A European Journal.

$[Co_2@Ge_{16}]^{4-}$: Localized vs. delocalized bonding in two isomeric intermetalloid clusters, (January 2018), Chemistry European Journal, 24, 699-705.

Computational assessment of an elusive aromatic N_3P_3 Molecule, (January 2018), ACS Omega, 3, 286-291.

Chang, Cheng Wei Tom

Antifungal amphiphilic kanamycins: new life for an old drug, (2018), MedChemComm, 9, 909-919.

Inhibition of connexin hemichannels by new amphiphilic amino-glycosides without antibiotic activity, (2018), ACS Med. Chem. Lett, 9, 697-701.

One-step synthesis of carbohydrate esters as antibacterial and antifungal agents, (2018), Bioorg. Med. Chem., 26, 765.

Synthesis and biological activity investigation of azole and quinone hybridized phosphonates, (2018), Bioorg. Med. Chem. Lett., 28, 3034.

Tuning the biological activity of aationic anthraquinone analogues specifically toward *Staphylococcus aureus*, (2018), Eur. J. Med. Chem., 127, 683.

Suppression of wheat fusarium head blight by novel amphiphilic aminoglycoside fungicide K20, (2018), Fungal Biology, 122, 465-470.

Corcoran, Christopher D

Association of rs3846662 as a genetic modifier for Alzheimer's disease: the Cache County Study, (2018), Alzheimer's & Dementia: The Journal of the Alzheimer's Association, 14, P1105.

Genetically elevated high-density lipoprotein cholesterol through the cholesteryl ester transfer protein gene does not associate with risk of Alzheimer's disease, (2018), Alzheimer's & Dementia: Diagnosis, Assessment & Disease Monitoring, 10, 595-598.

Interpreting MMSE scores in highly proficient bilingual Asian Indian-English and Spanish-English speakers: Demographic adjustments, item analyses, and supplemental measures, (2018), Journal of Speech Language Hearing Research.

Nutritional status and severe dementia, institutionalization, and mortality: The Cache County dementia progression study, (October 2018), Alzheimer's & Dementia: The Journal of the Alzheimer's Association.

Nutritional status is associated with severe dementia and mortality: The Cache County Dementia Progression Study., (October 2018), Alzheimer Disease and Associated Disorders, 32, 298-304.

Erratum to: "Sex differences in risk for Alzheimer's disease related to neurotrophin gene polymorphisms: The Cache County Memory Study", (March 2018), The Journals of Gerontology. Series A, Biological Sciences and Medical Sciences, 73, 311.

Cortez, Michael Henry

Genetic variation and the drivers of eco-coevolutionary predator-prey cycles, (2018), Ecological Monographs.

Partitioning the effects of ecology, evolution, and eco-evolutionary feedbacks on community stability, (2018), American Naturalist.

Coster, Daniel C

Knowledge, perceived threat, and knowledge on protective health behaviors: implications for Type 2 diabetes control in rural communities, (February 2018), The Diabetes Educator.

Dehler, Carol Merritt

Precambrian olistoliths masquerading as sills from Death Valley, California, (2018).

A Baltica Barcode: U-Pb detrital zircon geochronology and petrography of the middle Neoproterozoic Visingsö Group, Sveconorweigia, (November 2018).

Coupled Re-Os and U-Pb geochronology of the Tonian Chuar Group, Grand Canyon, (January (1st Quarter/Winter) 2018), Geological Society of America Bulletin.

Dickenson, Nicholas E.

Shutting down Shigella secretion: Characterizing small molecule type three secretion system ATPase inhibitors, (December 2018), Biochemistry, 57, 6906-6916.

Kinetic characterization of the *Shigella* type three secretion system ATPase Spa47 using α-32P ATP, (November 5, 2018), Bio-protocol, 8, e3074.

MxiN differentially regulates monomeric and oligomeric species of the *Shigella* type three secretion system ATPase Spa47, (March 29, 2018), Biochemistry, 57, 2266-2277.

Evans, Edward W

Dispersal in host-parasitoid interactions: crop colonization by pests and specialist enemies, (2018), Insects, 9, 134: 1-14.

Phenology of the dalmatian toadflax biological control agent *Mecinus janthiniformis* in Utah, (2018), Environmental Entomology, 47, 1-7.

Evans, James P

The role of fault-zone architectural elements on pore pressure propagation and induced seismicity, (September 2018), Groundwater, 14.

Durmid ladder structure and its implications for the nucleation sites of the next M >7.5 earthquake on the San Andreas fault or Brawley seismic zone in southern California, (July 2018), Lithosphere, 10, 602-631.

French, Susannah

Levels of plasma and fecal glucocorticoid metabolites following an ACTH challenge in male and female coyotes (*Canis latrans*), (2018), Journal of Comparative Physiology B, 188, 345-358.

Stable isotope tracers reveal a trade-off between reproduction and immunity in a reptile with competing needs, (2018), Functional Ecology, 32, 648-656.

Snakes exhibit tissue-specific variation in cardiotonic steroid sensitivity of Na^+/K^+-ATPase, (March 1, 2018), Comparative Biochemistry and Physiology Part - B: Biochemistry and Molecular Biology, 217, 21-26.

Gompert, Zachariah

Caterpillars on a phytochemical landscape, (2018), bioRxiv.

Natural selection and the predictability of evolution in *Timema* stick insects, (2018), Science, 359, 765-770.

Transitions from single-to multi-locus processes during speciation with gene flow, (2018), Genes, 9, 274.

Variable responses to novel hosts by populations of the seed beetle *Callosobruchus maculatus* (Coleoptera: Chrysomelidae: Bruchinae), (October 2018), Environmental Entomology, 47, 1194-1202.

Genetic constraints on wing pattern variation in Lycaeides butterflies: a case study on mapping complex, multifaceted traits in structured populations, (July 2018), Molecular Ecology Resources, 18, 892-907.

Admixture, evolution, and variation in reproductive isolation in the *Boechera puberula* clade, (April (2nd Quarter/Spring) 25, 2018), BMC Evolutionary Biology, 18, 61.

The predictability of genomic changes underlying a recent host shift in Melissa blue butterflies, (April 2018), Molecular Ecology, 27, 2651-2666.

Deconstruction of a plant-arthropod community reveals influential plant traits with nonlinear effects on arthropod assemblages, (February 2018), Functional Ecology, 32, 1317--1328.

Gordillo, Luis Fernando

A stochastic model for water-vegetation systems and the effect of decreasing precipitation on semi-arid environments, (2018), Mathematical Biosciences and Engineering, 15, 1155-1164.

Grilley, Michelle Marie

One-step synthesis of carbohydrate esters as antibacterial and antifungal agents, (2018), Bioorg. Med. Chem., 26, 765.

Synthesis and biological activity investigation of azole and quinone hybridized phosphonates, (2018), Bioorg. Med. Chem. Lett., 28, 3034.

Hengge, Alvan C.

A YopH PTP1B chimera shows the importance of the WPD-loop sequence to the activity, structure, and dynamics of protein tyrosine phosphatases, (2018), Biochemistry, 57, 5315-5326.

Hevel, Joan M

Phe 71 in type III trypanosomal protein arginine methyltransferase 7 (TbPRMT7) restricts the enzyme to monomethylation, (2018), Biochemistry.

Huntly, Nancy J

A stochastic model for water-vegetation systems and the effect of decreasing precipitation on semi-arid environments, (2018), Mathematical Biosciences and Engineering, 15, 1155-1164.

The role of climate in the dynamics of annual plants a Chihuahuan Desert ecosystem, (2018), Evolutionary Ecology Research, 19, 279-297.

Jackson, Ryan Neal

Role of nucleotide identity in effective CRISPR target escape mutations, (November 2018), Nucleic Acids Research, 46, 10395-10404.

Conformational dynamics of DNA binding and Cas3 recruitment by the CRISPR RNA-guided cascade complex., (February 2018), ACS Chemical Biology, 13, 481-490.

Janecke, Susanne U

Durmid ladder structure and its implications for the nucleation sites of the next M >7.5 earthquake on the San Andreas fault or Brawley seismic zone in southern California, (July2018), Lithosphere, 10, 602-631.

Ji, Jeong-Young

Electron parallel closures for the 3+1 fluid model, (March 2018), Physics of Plasmas.

Johnson, Sean J

A YopH PTP1B chimera shows the importance of the WPD-loop sequence to the activity, structure, and dynamics of protein tyrosine phosphatases, (2018), Biochemistry, 57, 5315-5326.

Structure of frequency-interacting RNA helicase from *Neurospora crassa* reveals high flexibility in a domain critical for circadian rhythm and RNA surveillance, (May 2018), PLoS ONE, 13, e0196642.

Kapheim, Karen Marie

Effects of social organization and resource availability on brood parasitism in the facultatively social nocturnal bee *Megalopta genalis*, (2018), Insectes Sociaux, 65, 85-93.

Genomes of the Hymenoptera, (2018), Current Opinion in Insect Science, 25, 65-75.

Investigating the viral ecology of global bee communities with high-throughput metagenomics, (2018), Scientific Reports, 8, 8879.

Liu, Tianbiao

A sulfonate functionalized viologen enabling neutral cation exchange aqueous organic redox flow batteries towards renewable energy storage, (2018), ACS Energy Letters, 3, 663-668.

A π-conjugation extended viologen as novel two-electron storage anolyte for total organic aqueous redox flow battery, (2018), Angew. Chem. Int. Ed., 57, 231-235.

Electrocatalytic CO_2 reduction catalyzed by nitrogenase MoFe and FeFe proteins, (2018), Bioelectrochemistry, 120, 104-109.

Improved radical stability of viologen anolytes in aqueous organic redox flow batteries, (2018), Chem. Commun., 54, 6871-6874.

Metal free electrocatalytic aerobic hydroxylation of arylboronic acids, (2018), Org. Letters, 20, 361-364.

New electrolyzer design for flexible decoupled water splitting and organic upgrading with electron reservoirs, (2018), Chem., 4, 637-649.

Tandem solar flow batteries for conversion, storage, and utilization of solar energy, (2018), Chem., 4, 2488-2490.

Two electron utilization of methyl viologen anolyte in nonaqueous organic redox flow battery, (2018), J. Energy Chem.

Lowry, Anthony

Moho temperature and mobility of lower crust in the western United States, (March2018), Geology, 46, 219-222.

Lucas, Lauren K

Genetic constraints on wing pattern variation in Lycaeides butterflies: a case study on mapping complex, multifaceted traits in structured populations, (July 2018), Molecular Ecology Resources, 18, 892-907.

The predictability of genomic changes underlying a recent host shift in Melissa blue butterflies, (April 2018), Molecular Ecology, 27, 2651-2666.

Malmendier, Andreas

Jacobian elliptic Kummer surfaces and special function identities, (2018), Commun. Number Theory Phys., 12.

Rational points in the moduli space of genus two, (2018), Contemp. Math., 703, 24.

Special function identities from superelliptic Kummer varieties, (2018), Asian J. Math., 21, 909--952.

Calabi-Yau manifolds realizing symplectically rigid monodromy tuples, (2018), Adv. Theor. Math. Phys.

Messina, Frank J.

Variable responses to novel hosts by populations of the seed beetle *Callosobruchus maculatus* (Coleoptera: Chrysomelidae: Bruchinae), (October 2018), Environmental Entomology, 47, 1194-1202.

Evolution of larval competitiveness and associated life-history traits in response to host shifts in a seed beetle, (February 2018), Journal of Evolutionary Biology, 31, 302-313.

Moon, Kevin R

Ensemble estimation of information divergence, (July 2018), Entropy, 20, 560.

Recovering gene interactions from single-cell data using data diffusion, (July 2018), Cell, 174, 716-729.

Manifold learning-based methods for analyzing single-cell RNA-sequencing data, (February 2018), Current Opinion in Systems Biology, 7, 36-46.

Newell, Dennis Lowell

Experimental study of gravitational mixing of supercritical CO_2, (2018), International Journal of Greenhouse Gas Control, 71, 62-73.

Evaluation of a cation-exchanging tracer to interrogate fracture surface area in enhanced geothermal systems, (January 2018), Geothermics, 71, 12-23.

Nie, Zhaohu

Sign-changing solutions of fractional p-Laplacian problems, (November 2018).

Nischwitz, Claudia

Deciphering the biology of *Cryptophyllachora eurasiatica gen. et sp. nov.*, an often cryptic pathogen of an allergenic weed, *Ambrosia artemisiifolia*, (July 2018), Scientific reports, 8, 14.

Pearse, William David

Complexity is complicated and so too is comparing complexity metrics—a response to Mikula et al. (2018), (2018), Evolution.

Evolutionary ecology of communities, (2018), Oxford Bibliographies; http://www.oxfordbibliographies.com/view/document/obo-9780199941728/obo-9780199941728-0111.xml.

Multiple facets of biodiversity drive the diversity-stability relationship, (2018).

Prioritizing phylogenetic diversity captures functional diversity unreliably, (2018), Nature communications, 9, 2888.

Suppdata: Downloading supplementary data from published manuscripts, (2018), Journal of Open Source Software.

What we (don't) know about global plant diversity, (2018), bioRxiv, 404376.

A multi-city comparison of front and backyard differences in plant species diversity and nitrogen cycling in residential landscapes, (2018), Landscape and Urban Planning.

Building up biogeography: pattern to process, (2018), Journal of Biogeography.

Towards an eco-phylogenetic framework for infectious disease ecology, (2018), Biological Reviews.

Homogenization of plant diversity, composition, and structure in North American urban yards, (2018), Ecosphere, 061937.

On the relationship between phylogenetic diversity and trait diversity, (2018), Ecology.

Functional biogeography of angiosperms: life at the extremes, (April 2018), New Phytologist.

Global macroevolution and macroecology of passerine song, (April 2018), Evolution.

Pitts, James P

Stinging wasps (Hymenoptera: Aculeata), which species have the longest sting? (2018), PeerJ.

Phylogeny and population genetic analyses reveals cryptic speciation in the *Bombus fervidus* species complex (Hymenoptera: Apidae), (November 2018), PLoS ONE.

Stinging wasps (Hymenoptera: Aculeata), which species have the longest sting? (May 2018), PLoS ONE.

Revision of the fire ants of the *Solenopsis saevissima* species-group (Hymenoptera: Formicidae), (May 1, 2018), Proceedings of the Entomological Society of Washington, 120, 308-411.

Taxonomic contributions to Ageniella Banks, 1912 (Hymenoptera: Pompilidae) from Brazil, (April (2nd Quarter/Spring) 2018), Zootaxa, 4403, 133-153.

Podgorski, Gregory J

Cell death as a trigger for morphogenesis, (January 2018), PloS one, 13, e0191089.

Ramirez, Ricardo A

Generalist and specialist mite herbivores induce similar defense responses in maize and barley but differ in susceptibility to benzoxazinoids, (August 2018), Frontiers in Plant Science.

Combinations of plant water-stress and neonicotinoids can lead to secondary outbreaks of Banks grass mite (*Oligonychus pratensis* Banks), (February 2018), PloS one, 13(2), p.e0191536.

Rao, Yi

Electron injection from a carboxylic anchoring dye to TiO_2 nanoparticles in aprotic solvents, (August 2018), Chemical Physics, 515, 93-97.

In situ chemical analysis of the gas–aerosol particle interface, (August 2018), Analytical Chemistry, 90, 10967-10973.

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Alston, Diane G

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Newell, Dennis Lowell

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Shervais, John W

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Liu, Tianbiao

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Contracts, Grants and Sponsored Research

Alston, Diane G

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Invasive pest outreach, Funded, $49,995.00, (July 1, 2018 - June 30, 2019).

Survey for native and introduced natural enemies of brown marmorated stink bug, Funded, $9,870.00, (May 2018 - April 2019).

Ault, Alexis

MRI: Acquisition of a noble gas multi-collector mass spectrometer for geochronology and geochemistry research, Funded, $880,722.00, (September 2018 - August 2021).

Baker, Michelle A

Southwest Climate Science Center, Funded, $4,499,669.00, (September 1, 2018 - August 31, 2023).

Collaborative Research: Rivers and the carbon cycle: a mechanistic basis for dissolved organic carbon removal, Funded, $263,941.00, (June 1, 2018 - May 31, 2020).

2018
Faculty Achievements and Activities
College of Science

Berreau, Lisa M.

MRI: Acquisition of a Benchtop X-ray Crystallography System, Funded, $111,238.00, (August 1, 2018 - July 31, 2021).

American Heart Association Pre-Doctoral Fellowship - Tatiana Soboleva, Funded, $53,688.00, (July 1, 2018 - June 30, 2020).

Bobeck, Erin Nicole

A novel neuropeptide-receptor system in psychiatric disorders, Funded, $70,000.00, (January 2018 - July 2019).

Bradbury, Kelly Keighley

Structure, Permeability Architecture, and Rock Properties of the San Andreas Fault at SAFOD-Insights from Microscopy, Geochemistry, and Physical Properties., Funded, $234,055.00, (September 1, 2018 - September 1, 2020).

Cortez, Michael Henry

Collaborative Research: Development and empirical tests of a mechanistic multi-host, multi-pathogen theory, Funded, $735,288.00, (June 2018 - May 2020).

Dennison, John Robert

Volume Charge Distribution Measurement in Thin Dielectrics: Commercialization Readiness Program (CRP) Project, Funded, $384,477.00, (January 2018 - December 2019).

Testing of Microcontrollers Radiation Damage Threshold to Determine Their Stability for Satellite Use, Funded, $2,000.00, (January 2018 - May 2019).

Relaxation of Radiation Effects in Poymers, Funded, $2,000.00, (May 2018 - April 2019).

Scholarships for USU Physics Day at Lagoon, Funded, $18,000.00, (April 2018 - April 2019).

Support for USU Physics Day at Lagoon STEM Outreach Activity, Funded, $2,000.00, (April 2018 - April 2019).

Support for USU Physics Day at Lagoon STEM Outreach Activity, Funded, $2,500.00, (April 2018 - April 2019).

Development of Database for Spacecraft Charging Materials Properties for Space Materials, Funded, $4,000.00, (May 2018 - August 2018).

Beta Radiation of Optical Materials, Funded, $5,500.00, (February 2018 - August 2018).

UV Degradation of Optical Materials, Funded, $3,500.00, (February 2018 - August 2018).

Studies of Electric Charging Properties of SpaceX Dielectric Coating Materials, Funded, $34,444.00, (January 2018 - August 2018).

Edwards, Boyd Farrell

Collaborative Research: Fundamental Mechanisms of Microfluidic Traveling-Wave Electrophoresis, Funded, $150,000.00, (July 1, 2018 - June 30, 2021).

Ensign, Scott A

Development of html5- and javascript-based on line instructional resources for use in general chemistry classes, Funded, $5,000.00, (June 2018 - June 2019).

Evans, Edward W

An assessment of bee population and regional pollinator diversity, Funded, $59,459.00, (September 2018 - September 2023).

Assessing success of weed biocontrol in Utah, Funded, $11,125.00, (May 2018 - April 2019).

Evans, James P

Examining temperatures and microgeochemical processes on fault slip surfaces with synchrotron methods, Funded, $187,363.00, (July 1, 2018 - June 30, 2021).

Integration of the Physical and Chemical Rock Properties, Structure, and Permeability of the San Andreas Fault, San Andreas Fault Observatory at Depth Borehole, California, Funded, $234,055.00, (September 1, 2018 - August 31, 2020).

Analyses of the Near-surface Composition, Properties, and Structure of the San Andreas Fault, Lake Elizabeth area, Funded, $20,000.00, (February 1, 2018 - February 28, 2019).

Farrelly, David

Sistemas Dinamicos Hamiltonianos: Metodos y Aplicaciones en Fisica Atomica y Molecular, Funded, $55,000.00, (January 2018 - December 2020).

French, Susannah

Collaborative Research: The interplay between host diet, immunity, reproduction, and the microbiome across an anthropogenic-disturbed landscape, Funded, $1,055,777.00, (October 1, 2018 - September 30, 2021).

Demographic and physiological monitoring of the Colorado checkered whiptail (COCW): An integrated conservation approach, Funded, $99,957.00, (August 24, 2018 - December 31, 2019).

Impacts of ecotourism on endangered iguanas and their habitat in the Bahamas, Funded, $19,460.00, (October 1, 2018 - September 30, 2019).

Gompert, Zachariah

UW-NPS Small Grant: Forecasting eco-evolutionary dynamics in the Northern Blue butterfly, Funded, $5,000.00, (May 2018 - April 2019).

Hadfield, KimberLeigh Felix

Utah State University STARS! GEAR UP Partnership Cohort 4, Funded, $16,871,200.00, (October 1, 2018 - September 30, 2025).

Hageman, Kimberly Jill

Solving Citrus Greening, Funded, $1,200,000.00, (January 2018 - December 2018).

Held, Eric D

Subcontract with Tech-X Corporation of Boulder, CO, Funded, $50,000.00, (January 2018 - June 2018).

Huntly, Nancy J

Southwest Climate Science Center, Funded, $4,499,669.00, (September 1, 2018 - August 31, 2023).

ARTsySTEM: Integrating the Arts and Sciences to create public art and engage community, Funded, $101,821.00, (January 1, 2018 - December 31, 2019).

Jones, Justin A

Synthetic SLYME, Funded, $750,000.00, (August 2018 - July 2019).

Kapheim, Karen Marie

Collaborative Research: The interplay between host diet, immunity, reproduction, and the microbiome across an anthropogenic-disturbed landscape, Funded, $1,055,777.00, (October 1, 2018 - September 30, 2021).

Collaborative Proposal: Social brains and solitary bees: A phylogenetic test of the effect of social behavior on brain evolution across multiple gains and losses of sociality, Funded, $572,434.00, (May 1, 2018 - April 30, 2021).

Maternal effects on offspring development in crop-pollinating bees, Megachile rotundata, Funded, $471,833.00, (February 1, 2018 - January 31, 2021).

The impact of immune stress on pathogen susceptibility and life history traits in Nomia melanderi, Funded, $19,064.00, (May 2018 - May 2019).

Lewis, Randolph

Synthetic SLYME, Funded, $750,000.00, (August 2018 - July 2019).

Liu, Tianbiao

MRI: Acquisition of a Benchtop X-ray Crystallography System, Funded, $111,238.00, (August 1, 2018 - July 31, 2021).

Lucas, Lauren K

UW-NPS Small Grant: Forecasting eco-evolutionary dynamics in the Northern Blue butterfly, Funded, $5,000.00, (May 2018 - April 2019).

Malmendier, Andreas

Control of Tailless Morphing Aircraft, Funded, $394,510.00, (September 2018 - August 2021).

Conference Grant: Explicit Methods for Abelian Varieties and Kummer Surfaces, Funded, $13,435.00, (May 2018 - May 2020).

Miller, Shawn Michael

Classroom Improvement Fund, Funded, $1,600.00, (August 2018).

Nischwitz, Claudia

Orchard Commodity Survey, Funded, $17,000.00, (July 2018 - June 2019).

Pearse, William David

Collaborative Research: ABI Development: Symbiota2: Enabling greater collaboration and flexibility for mobilizing biodiversity data, Funded, $718,737.00, (May 2018 - April 2021).

MSB-ECA: Modelling the regional context of community assembly in NEON using phylogeny, Funded, $299,021.00, (August 2018 - July 2020).

Evaluation of metrics and analytical approaches for using macroinvertebrate data to draw inference about condition of stream reaches, and impact of specific land-use practices, on Forest Service lands, Funded, $70,267.00, (September 2018 - June 2019).

Evaluation of metrics and analytical approaches for using macroinvertebrate data to draw inference about condition of stream reaches, and impact of specific land-use practices, on Forest Service lands, Funded, $70,267.00, (July 2018 - March 2019).

Augmenting Research Grounded On NEON (ARGON), Funded, $11,000.00, (April 2018).

ARGON: Augmenting Research Grounded On NEON, Funded, $20,000.00, (February 2018 - March 2018).

Ramirez, Ricardo A

Protecting Alfalfa Yield from Weevil Damage in the Intermountain West Region, Funded, $294,200.00, (October 1, 2018 - September 30, 2021).

Guide to Introduced and Potentially Invasive Bees in the U.S., Funded, $155,268.00, (September 2018 - September 2020).

Developing a website for the USU Extension agronomy program, Funded, $10,000.00, (March 2018 - December 2019).

Study of life cycles of Melittobia and Pteromalus using managed Megachile rotundata as hosts, Funded, $26,500.00, (August 2018 - July 2019).

Invasive pest outreach, Funded, $49,995.00, (July 1, 2018 - June 30, 2019).

Utah plant pest survey and detection project, Funded, $69,284.00, (July 2018 - June 2019).

Field Crop Survey, Funded, $28,121.00, (May 2018 - April 2019).

Rao, Yi

Development of Low-Cost Short-Wave IR Device Materials, Funded, $280,000.00, (October 1, 2018 - September 30, 2020).

Developing Competent and Low-Cost Hydrogen Fuel Cells, Funded, $207,986.00, (July 1, 2018 - September 30, 2019).

Rodriguez, Maria Jose

Jurgen Ehlers Spring School, Funded, $17,000.00, (January 1, 2018 - January 1, 2020).

Savitzky, Alan H.

Howard Hughes Medical Institute Inclusive Excellence Grant, Funded, $1,000,000.00, (September 1, 2018 - August 31, 2023).

Spears, Lori Rena

Guide to Introduced and Potentially Invasive Bees in the U.S., Funded, $155,268.00, (September 2018 - September 2020).

Comparing capture rates of hot melt and traditional sticky inserts under field and laboratory conditions, Funded, $43,818.00, (July 1, 2018 - June 30, 2019).

Invasive pest outreach, Funded, $49,995.00, (July 1, 2018 - June 30, 2019).

Orchard Commodity Survey, Funded, $17,000.00, (July 2018 - June 2019).

Utah plant pest survey and detection project, Funded, $69,284.00, (July 2018 - June 2019).

Field Crop Survey, Funded, $28,121.00, (May 2018 - April 2019).

Survey for native and introduced natural enemies of brown marmorated stink bug, Funded, $9,870.00, (May 2018 - April 2019).

Stark, John M

Soil microbial carbon-use efficiency in legume vs grass pastures, Funded, $75,000.00, (July 1, 2018 - June 30, 2023).

Sullivan, Kimberly A

Population Dynamics of Northern Goshawk, Funded, $238,850.00, (January 1, 2018 - December 31, 2019).

Sun, Yan

Ground Snow Load Predictions for Washington State, Funded, $12,000.00, (August 1, 2018 - January 31, 2019).

Varela, Oscar

NSF, Division of Physics (PHY) 1720364, Funded, $165,000.00, (August 1, 2018 - July 31, 2020).

Jurgen Ehlers Spring School, Funded, $17,000.00, (January 1, 2018 - January 1, 2020).

Wheeler, Gregory D

Utah State University STARS! GEAR UP Partnership Cohort 4, Funded, $16,871,200.00, (October 1, 2018 - September 30, 2025).

Wheeler, James Thomas

NSBP 2018 Travel Grant, Funded, $750.00, (November 4, 2018 - November 7, 2018).

Keith Taylor summer research award, 2018, Funded, $4,500.00, (May 15, 2018 - August 15, 2018).

Zhao, Jia

Computational Modeling of How Living Cells Utilize Liquid- Liquid Phase Separation to Organize Chemical Compartments, Funded, $150,000.00, (June 1, 2018 - May 31, 2021).

NVIDIA GPU Grant, NVIDIA Corporation, (December 2018).

NSF Grant DMS-1816783, PI, National Science Foundation, (June 2018).

Research Catalyst (RC) Grant, Office of Research and Graduate Studies, USU, (January 2018).

Presentations and Posters

Alston, Diane G

Fun insect biology and pest management facts, Utah Public Radio Green Thumb Show, January 2018.

Damage potential of the invasive brown marmorated stink bug on tart cherry, Great Lakes Expo, December 2018.

Detection of microsporidia and nematode pathogens in the brown marmorated stink bug, Biology Undergraduate Student Research Symposium, November 2018.

Inhabitation status of egg parasitoid wasps of brown marmorated stink bug, *Halymorpha halys* (Stal) in Utah, Biology Undergraduate Student Research Symposium, November 2018.

Brown marmorated stink bug feeding damage on tart cherry in Utah, Entomological Society of America Joint Annual Meeting, November 2018.

Mixing regionally-distinct populations of blue orchard bees, *Osmia lignaria*, to understand development, emergence, and reproductive success, Entomological Society of America Joint Annual Meeting, November 2018.

Status of BMSB in Utah: a mountain west state, Entomological Society of America Joint Annual Meeting, November 2018.

Tracking brown marmorated stink bug in Utah's urban-agricultural landscapes, Entomological Society of America Joint Annual Meeting, November 2018.

Onion insect update, Utah Onion Association Field Tour, August 2018.

New codling moth mating disruption technology and IPM for small acreage orchards, Utah State University Horticultural Research Field Day, June 2018.

Brown marmorated stink bug in the urban landscape of northern Utah: host plants, trap efficacy and biological control, Pacific Branch of the Entomological Society of America 102nd Annual Meeting, June 2018.

Brown marmorated stink bug overwintering success and survey for natural enemies in Utah, Pacific Branch of the Entomological Society of America 102nd Annual Meeting, June 2018.

Impact of BMSB on fruit and vegetable production in Utah, a Mountain West State, Pacific Branch of the Entomological Society of America 102nd Annual Meeting, June 2018.

Leading IPM successes in Utah's specialty crops, communities and schools, Pacific Branch of the Entomological Society of America 102nd Annual Meeting, June 2018.

Field and farmscape management: Dealing with onion enemies, New Zealand Onion Growers Association - North Island, May 2018.

Dealing with onion enemies: field and farm management approaches, New Zealand Onion Growers Association - South Island, May 2018.

Tree fruit pest management update sessions, Mountainland Tree Fruit Grower Meetings, March 2018.

Advanced IPM tools for small-scale vegetable production, Urban and Small Farms Conference, February 2018.

Hands-on pest identification and scouting methods, Urban and Small Farms Conference, February 2018.

How-to's on spider mite scouting, thresholds and management in raspberry, Urban and Small Farms Conference, February 2018.

Update on brown marmorated stink bug and spotted wing drosophila, Urban and Small Farms Conference, February 2018.

IPM concepts and common fruit and vegetable insect and mite pests, USU Extension Master Gardener Course, February 2018.

Integrated pest management for the garden and landscape: insect and mite pests, USU Extension Master Gardener Course, February 2018.

New codling moth biofix model and cat-facing insect update, Northern Utah Fruit Growers Meeting, February 2018.

Codling moth biofix model and management musings, Utah State Horticultural Association Annual Convention, January 2018.

Cherry fruit fly attract-and-kill, Utah State Horticultural Association Annual Field Day and Convention, January 2018.

Introducing a new codling moth biofix option to Utah producers, Orchard Pest and Disease Management Conference, January 2018.

Invasion history of brown marmorated stink bug in Utah, Orchard Pest and Disease Management Conference, January 2018.

Ault, Alexis

Localization of seismic and aseismic strain in hematite vein-fault mirror pairs, American Geophysical Union Fall Meeting, December 2018.

Nanotextural and nanochemical constraints on the role of heat in development of crystalline-hosted, silica-rich fault mirrors in the Wasatch fault damage zone, American Geophysical Union Fall Meeting, December 2018.

Thermomechanical evolution of experimentally-derived hematite slip surfaces, American Geophysical Union Fall Meeting, December 2018.

Nanoscale evidence for transient rheology during an earthquake, Southern California Earthquake Center Annual Meeting, September 2018.

Preliminary data on detecting asperity flash heating on hematite faults with laboratory experiments and hematite (U-Th)/He thermochronometry, Southern California Earthquake Center Annual Meeting, September 2018.

Transient rheology during earthquakes: insight from nanotextures and (U-Th)/He thermochronometry of hematite fault mirrors, Thermo 2018, September 2018.

Transient rheology during earthquakes: insight from nanotextures and (U-Th)/He thermochronometry of hematite fault mirrors, Gordon Conference on Rock Deformation, August 2018.

Baker, Michelle A

A monitoring network for sensing water quality and hydrology across mountain to urban ransitions, 2018 UCOWR/NIWR Annual Water Resources Conference, June 2018.

Logan River Observatory: Extending iUTAH's GAMUT network for long-term monitoring to inform local policy and water management, Utah State University Spring Runoff Conference, March 2018.

Beckman, Noelle Gabriele

Seed dispersal ecology under global change, Applied Mathematics, November 2018.

Seed dispersal ecology under global change, School of Natural Resources and Environment, October 2018.

Multi-scale investigation on the effects of landscape fragmentation on plant functional diversity in an African forest, Ecological Society of America, August 2018.

Novel approaches to predicting plant species' movement under climate change, Ecological Society of America, August 2018.

Seed to seedling transition shows distance-based mortality effects but no strong Janzen-Connell patterns for tree species at Barro Colorado Island (Panama), Ecological Society of America Meeting, August 2018.

Extinction risk of plant species in a warming climate, Boundary Spanning: Advances in in Socio-Environmental Systems Research, June 2018.

Extinction risk of plant species under global change, WILD Seminar, February 2018.

Bernhardt, Scott A

Insecticide resistance in *Phlebotomus argentipes* in Bihar state, India, Tropical Medicine Research Center, Bihar India, February 2018.

Berreau, Lisa M.

In vitro muscular atrophy model with suspended muscle fibers, American Society for Gravitational and Space Research (ASGSR), October 2018.

Coordination number effects on Copper-mediated aliphatic Carbon-Carbon bond cleavage reactions of chlorinated β-diketones, 256th ACS National Meeting, August 2018.

Pathways for industrial chemists symposium, 256th ACS National Meeting, August 2018.

Cu(II) mediated aliphatic Carbon-Carbon bond cleavage reactivity, Inorganic Chemistry Gordon Research Conference, June 2018.

Mitochondrial-targeted organic photoCORM, USU Student Research Symposium, April 2018.

Mitochondria-targeted CO-releasing molecule, American Chemical Society Spring 2018 National Meeting, March 2018.

Carbon monoxide: A future therapeutic, Sunrise Session, February 9, 2018.

Bradbury, Kelly Keighley

Status of SAFOD core, Earthscope - SAFOD Synthesis, October 2018.

Structural and geochemical analyses of SAFOD core, Earthscope-SAFOD Synthesis, October 2018.

The composition and structure of shallow portions of the San Andreas and San Gabriel Faults, SCEC, September 2018.

Applications of synchrotron radiation to structural diagenesis in mature faults, 2018 Rock Deformation (GRS) Seminar GRC, August 2018.

Chang, Cheng Wei Tom

From Semisynthetic to Natural Bioactive Compounds, June 11, 2018.

From Semisynthetic to Natural Bioactive Compounds, May 29, 2018.

From Semisynthetic to Natural Bioactive Compounds, May 24, 2018.

From Semisynthetic to Natural Bioactive Compounds, May 14, 2018.

From Semisynthetic to Natural Bioactive Compounds, May 13, 2018.

Cortez, Michael Henry

The indirect effects between pathogens that share competing hosts: competitive vs. noncompetitive interactions, SACNAS Annual Conference, October 2018.

The indirect effects between pathogens that share competing hosts: competitive vs. noncompetitive interactions, Ecological Society of America Annual Meeting, August 2018.

Dennison, John Robert

Simulating muscle atrophy due to microgravity and ionizing radiation, American Society for Gravitational and Space Research (ASGSR), October 2018.

Characterizing the effects of radiation on muscle cells, Institute of Biological Engineering, April 2018.

Dickenson, Nicholas E.

In vitro to in vivo: Regulating the *Shigella* type three secretion system, Boise State University Chemistry Seminar Series, November 2018.

Characterization of predicted interfacial salt bridges in Spa47 to better understand the mechanism of oligomer based Spa47 activation, 2018 Hansen Life Sciences Retreat, September 2018.

Development of stable protein constructs provides insight into type three secretion system induced cell membrane disruption, 2018 Hansen Life Sciences Retreat, September 2018.

MxiN differentially regulates monomeric and oligomeric species of the *Shigella* type three secretion system ATPase Spa47, 2018 Hansen Life Sciences Retreat, September 2018.

Post-translational modifications of tyrosine 274 modulate Spa47 ATPase activity and *Shigella* virulence, 2018 Hansen Life Sciences Retreat, September 2018.

MxiN differentially regulates monomeric and oligomeric species of the *Shigella* type three secretion system ATPase Spa47, American Society for Biochemistry and Molecular Biology (ASBMB) Meeting, April 2018.

Spa47 oligomerization plays a key role in ATPase activation and function in the *Shigella* type III secretion system, American Society for Biochemistry and Molecular Biology (ASBMB) Meeting, April 2018.

Powering *Shigella* infection: Structure function studies of the type three secretion system ATPase Spa47, University of Utah, Department of Biology Seminar Series, April 2018.

Powering *Shigella* infection: Structure function studies of the type three secretion system ATPase Spa47, Boston University Seminar Series, February 2018.

Spectroscopic characterization of *Shigella* type three secretion system interactions uncovers key regulatory steps in pathogen virulence, 2018 Society of Western Analytical Professors (SWAP) Conference, January 2018.

Evans, James P

Three dimensional aseismic creep deformation from differencing of structure from motion and LiDAR high resolution topography on the San Andreas Fault, California: American Geophysical Union National meeting, December 2018.

Unraveling a tectonic knot: structural domains, voluminous fault zones, creep, and dispersed strain between the San Andreas Fault and Brawley Seismic Zone, SCEC Annual meeting, 2018.

Unraveling a tectonic knot: structural domains, voluminous fault zones, creep, and dispersed strain between the San Andreas Fault and Brawley Seismic Zone, Southern California Earthquake Center, September 2018.

Applications of synchrotron radiation to structural diagenesis in mature faults, 2018 Rock Deformation (GRS) Seminar GRC, August 2018.

Fejer, Bela Gyula

Equatorial disturbance dynamo plasma drifts and neutral winds over Jicamarca, 2018 Fall AGU Meeting, December 2018.

Seasonal and solar cycle dependence of the equatorial vertical disturbance drifts over Jicamarca, AGU Fall Meeting, December 2018.

The electrodynamics of the equatorial lower ionosphere, 42nd COSPAR General Assembly, July 2018.

On the morphology of the equatorial evening vortex, US URSI Meeting, January 2018.

Gompert, Zachariah

Population admixture in the cosmopolitan fern genus, *Pteridium* (Dennstaedtiaceae), Botany 2018, July 2018.

Nabokov's Butterflies, Science Unwrapped, January 2018.

Gordillo, Luis Fernando

Preparing graduate researchers for careers that span boundaries to foster adaptation to climate change, Boundary Spanning: Advances in Socio-Environmental Systems Research, An International Symposium, June 2018.

Hevel, Joan M

Redox regulation of PRMT1, Invited Talk, October 2018.

Huntly, Nancy J

Preparing graduate researchers for careers that span boundaries to foster adaptation to climate change, Boundary Spanning: Advances in Socio-Environmental Systems Research, An International Symposium, June 11, 2018.

Janecke, Susanne U

Three dimensional aseismic creep deformation from differencing of structure from motion and LiDAR high resolution topography on the San Andreas Fault, California: American Geophysical union National meeting, December 2018.

Cache Valley: clustered earthquakes, liquefaction, possible triggers of the Bonneville flood, UGS Bonneville conference, October 2018.

Unraveling a tectonic knot: structural domains, voluminous fault zones, creep, and dispersed strain between the San Andreas Fault and Brawley Seismic Zone, SCEC Annual meeting, 2018.

Episodic deposition and incision of the Third Dam alluvial-fan complex in Logan Canyon, Bear River Range, North-central Utah, GSA Rocky Mtn. Meeting, 2018.

New age control on old lake cycles, evidence from luminescence ages from northern Utah and southern Idaho, Utah Geological Association Bonneville Conference, 2018.

Cache Valley: A critical part of Lake Bonneville tells a unique tale of shorelines, thresholds, clustered earthquakes, liquefaction, possible triggers of the Bonneville flood, and late integration with the main basin, Utah Geological Association Bonneville Conference, October 2018.

OSL age dating of two, perhaps three, pre-Bonneville deepwater pluvial lakes in Cache Valley, Utah-Idaho: Implications of their unexpected high altitudes for excavation of Cutler Narrows from a level above 1494 m (4901'), down to the present 1314 m (4310') mainly during the Bonneville lake cycle, Utah Geological Association Bonneville Conference, October 2018.

The Bear River's diversion and the cutting of Oneida Narrows at ~55-50ka and relations to the Lake Bonneville record, Utah Geological Association Bonneville Conference, October 2018.

Unraveling a tectonic knot: structural domains, voluminous fault zones, creep, and dispersed strain between the San Andreas Fault and Brawley Seismic Zone, Southern California Earthquake Center, September 11, 2018.

Ji, Jeong-Young

Parallel closures and transport for toroidal plasmas in the collisionless limit, APS-DPP, NIMROD Team Meeting, November 2018.

Closure theory of partially ionized plasmas, NIMROD Team Meeting, August 2018.

Johnson, Sean J

Characterization of predicted interfacial salt bridges in Spa47 to better understand the mechanism of oligomer based Spa47 activation, 2018 Hansen Life Sciences Retreat, September 2018.

Structure of frequency-interacting RNA helicase from Neurospora crassa reveals high flexibility in a domain critical for circadian rhythm and RNA surveillance, Post-transcriptional control of gene expression: Mechanisms of RNA decay, June 2018.

Kapheim, Karen Marie

Life outside the hive: What comparative genomics reveals about bee behavior, physiology, and evolution, EurBee8, September 2018.

Causes and consequences of social plasticity in bees, Entomology Department Seminar, August 2018.

Causes and consequences of behavioral plasticity in bees, Entomology Department Seminar, February 2018.

Nutritional and hormonal factors influencing alkali bee reproductive development, Western Alfalfa Seed Growers Association Winter Seed Conference, January 2018.

Causes and consequences of behavioral plasticity in bees, Biology Department EEB Seminar Series, January 2018.

Kohler, Brynja R

Did they learn anything? – Learning assessment in a general business analytics course, DSI Annual Meeting, November 2018.

Enhancing instruction with MATLAB, Together We Teach 2018, August 2018.

Lachmar, Thomas

Mountain-block recharge from alpine karst, Geological Society of America Rocky Mountain and Cordilleran sections combined meeting, May 2018.

Liu, Tianbiao

Sulfonate functionalized viologens for redox flow battery applications, December 2018.

Developing electrolyte chemistry for Mg rechargeable batteries, 2018 ACS Fall Meeting, August 2018.

Advanced Mg electrolytes for Mg Batteries, the 1st Utah Energy Symposium, July 2018.

Two electron storage viologne anolytes for redox flow battery application, the 1st Utah Energy Symposium, July 2018.

Aqueous organic redox flow batteries, April 2018.

Advanced battery technologies for energy storage, January 2018.

Developing high energy density MgbBatteries, January 2018.

Energy conversion and storage using batteries and electrocatalysis, January 2018.

Developing aqueous organic redox flow batteries for sustainable and economical energy storage, Nature Conference on Materials Electrochemistry: Fundamentals and Applications, January 2018.

Tailoring redox active molecules for energy Storage, 1st International Coalition for Energy Storage and Innovation (ICESI), January 2018.

Lowry, Anthony

Evidence for hydration and its role in dynamics of the western U.S. Cordillera, 2018 meeting of the Canadian Geophysical Union, June 2018.

Lucas, Lauren K

Nabokov's Butterflies, Science Unwrapped, January 2018.

Malmendier, Andreas

Geometry of (1,2) - polarized Kummer surfaces and theta identities, AMS Special Session on Hyperelliptic and Superelliptic Curves,, October 2018.

Normal forms for Kummer surfaces with small polarization, I-70 Algebraic Geometry Symposium, October 2018.

Helping students transition from calculations to mathematics, USU Together We Teach Student Conference, August 2018.

Illuminating and reducing ambiguity in mathematics, USU Together We Teach Student Conference, August 2018.

Studying Calabi-Yau manifolds with differential equations, USU Together We Teach Student Conference, August 2018.

Fibrations on K3 surfaces with and without section, Geometry Seminar, University of Maryland, June 2018.

Period domains and GKZ systems, Algebraic Geometry Seminar, Texas A&M, May 2018.

Kummer surface with small polarization, Mathematics Colloquium, UCI, May 2018.

The group law on Jacobian varieties of hyperelliptic curves, Student Colloquium, UC Irvine, May 2018.

Split Jacobians and relations between theta functions, USU Student Research Days in Geometry, April 2018.

A three parameter family of K3 surfaces and their periods, USU Student Research Days in Geometry and Physics, April 2018.

Theta relations from coverings of algebraic curves, MAA Intermountain Section Annual Conference, March 2018.

A linear system of PDEs from geometry, MAA Intermountain Section Conference, March 2018.

Theta relations from coverings of algebraic curves, MAA Intermountain Section Conference, March 2018.

K3 surfaces in physics and engineering, USU Student Research Symposium 2018, March 2018.

Non-polarized K3 surfaces, Algebraic Geometry Seminar, University of Utah, February 2018.

Theta relations from coverings of algebraic curves, AMS Joint Mathematics Meeting, San Diego, January 2018.

K3 surfaces of high Picard rank, BIRS Workshop on Geometry and Physics of F-theory, January 2018.

Nischwitz, Claudia

Onions - Utah Update 2018, National Allium Research Conference-W3008, November 2018.

Importance of seed as an inoculum source for High Plains Virus in sweet corn, Annual meeting, July 2018.

Field and farmscape management: Dealing with onion enemies, New Zealand Onion Growers Association - North Island, May 2018.

Dealing with onion enemies: Field and farm management approaches, New Zealand Onion Growers Association - South Island, May 21, 2018.

Pederson, Joel L

New age control on old lake cycles, evidence from luminescence ages from northern Utah and southern Idaho, Utah Geological Association Bonneville Conference, 2018.

The Bear River's diversion and the cutting of Oneida Narrows at ~55-50ka and relations to the Lake Bonneville record, Utah Geological Association Bonneville Conference, October 2018.

Ramirez, Ricardo A

Bees at large: identifying exotic bees in the United States, Entomological Society of America Joint Annual Meeting, November 2018.

Effects of landscape structure and climate variability on beneficial insect diversity in agronomic crops of Utah, Entomological Society of America Joint Annual Meeting, November 2018.

Evaluation of alfalfa cultivars for potential management of the clover root curculio, Entomological Society of America Joint Annual Meeting, November 2018.

*Melittobi*a sp. use and life cycle on *Megachile rotundata*, Entomological Society of America Joint Annual Meeting, November 2018.

Understanding how water stress affects spider mite resistance in maize, Entomological Society of America Joint Annual Meeting, November 2018.

Understanding the role of conservation biocontrol for billbug suppression in turfgrass, Entomological Society of America Joint Annual Meeting, November 2018.

Insecticide efficacy in controlling aphid complex in alfalfa. National Society of County Agricultural Agents Western Region Annual Meeting and Professional Improvement Conference, October 2018.

Landscape ecology of beneficial insects in agronomic crops of Utah, Society for Advancement of Chicanos/Hispanics and Native Americans in Science, October 2018.

Factoring abiotic stress into plant-arthropod interactions and pest management, USU Climate Adaptation Science Colloquium, September 2018.

Factoring abiotic stress into plant-arthropod interactions and pest management, Penn State Univ, Entomology Dept Seminar Series, September 2018.

Communicating science through extension, USU Climate Adaptation Science and Ecology Center Seminar Series, September 2018.

Effects of water-stress on maize plant defenses against generalist and specialist spider mites, 102th Annual Meeting of the Pacific Branch Entomological Society of America, June 2018.

Evaluation of root-pest resistant alfalfa cultivars for potential management of the clover root curculio, 102th Annual Meeting of the Pacific Branch Entomological Society of America, June 2018.

Increasing preventive and curative options for clover root curculio management in western alfalfa, North American Alfalfa Improvement Conference, June 2018.

Increasing preventive and curative options for clover root curculio management in western alfalfa, North American Alfalfa Improvement Conference, June 2018.

Landscape ecology of beneficial insects in agronomic crops of Utah, Pacific Branch of the Entomological Society of America 102nd Annual Meeting, June 2018.

Research projects in the lab, USU Climate Adaptation Science, March 2018.

Aphid Control & Beneficial Insects, 2018 USU Extension Winter Crop Workshop, January 2018.

Rao, Yi

Interfacial chemistry for energy and catalysis, Utah Energy Symposium, August 2018.

Interfacial structure and dynamics for environmental and energy applications, Nonlinear Optics at Interfaces, June 2018.

Ultrafast Interfacial Charge Transfer for Energy and Environments, Invited talk, May 9, 2018.

Ultrafast Interfacial Charge Transfer for Energy and Environments, Invited talk, May 7, 2018.

Ultrafast Interfacial Charge Transfer for Energy and Environments, Invited talk, April 29, 2018.

Ultrafast Interfacial Charge Transfer for Energy and Environments, Invited talk, April 28, 2018.

Ultrafast Interfacial Charge Transfer for Energy and Environments, Invited talk, April 24, 2018.

Ultrafast Interfacial Charge Transfer for Energy and Environments, Invited talk, April 20, 2018.

Ultrafast Interfacial Charge Transfer for Energy and Environments, Invited Talk, April 19, 2018.

In situ interfacial analysis of gas-aerosol particles, Air Quality: Science for Solutions, March 29, 2018.

Inherent directional order of methylammonium cations in lead-iodide perovskite, ACS New Orleans March 2018.

Riffe, David Mark

Efficient computation of vibrational properties of bulk and surface BCC, FCC, HCP and 9R lattice structures, APS Four Corners Section Meeting, 2018.

Rittenour, Tammy M

Cache Valley: clustered earthquakes, liquefaction, possible triggers of the Bonneville flood, UGS Bonneville conference, October 2018.

Expanding the chronological toolkit: Luminescence dating in archaeological contexts, Great Basin Archaeological Conference, 2018.

Dry times in the central Colorado Plateau: prehistoric drought in southern Utah dune fields, GSA Annual Meeting, 2018.

Evidence of eolian erosion of the bedrock landscapes of western Wisconsin during the late Pleistocene, GSA Annual Meeting, 2018.

Geomorphic constraints on active folding above a historically persistent cluster of shallow small earthquakes in central Alaska, GSA Annual Meeting, 2018.

Invited Talk - Dynamic River systems in the Grand Staircase, southern Utah: The role of high erosion rates, hydroclimate variability and Geomorphic Thresholds in Holocene Arroyo dynamics, GSA Annual Meeting, 2018.

Invited Talk - GSA Quaternary Geology and Geomorphology Division Kirk Bryan Award: Landscape evolution, valley excavation, and terrace development following abrupt post-glacial base-level fall, GSA Annual Meeting, 2018.

Invited Talk - Luminescence dating: Shedding light on complex soil and archaeological site formation, GSA Annual Meeting, 2018.

Luminescence in a different light: An exploration of the benefits and challenges to luminescence dating in the critical zone, GSA Annual Meeting, 2018.

The kames of Rohan: Luminescence ages of ice marginal activity in Middle Earth (Rangitata Valley, New Zealand) through the last glaciation, GSA Annual Meeting, 2018.

Chronostratigraphy of two dune fields in southern Utah – Implications for drought patterns in the Central Colorado Plateau, GSA Rocky Mtn. Meeting, 2018.

Dynamic fluvial and eolian systems in southern Utah. A climate or Geomorphic Record? GSA Rocky Mtn. Meeting, 2018.

Episodic deposition and incision of the Third Dam alluvial-fan complex in Logan Canyon, Bear River Range, North-central Utah, GSA Rocky Mtn. Meeting, 2018.

Late-Pleistocene climate controls on aeolian activity, Coral Pink Sand Dunes, Utah, GSA Rocky Mtn. Meeting, 2018.

New age control on old lake cycles, evidence from luminescence ages from northern Utah and southern Idaho, Utah Geological Association Bonneville Conference, 2018.

Cache Valley: A critical part of Lake Bonneville tells a unique tale of shorelines, thresholds, clustered earthquakes, liquefaction, possible triggers of the Bonneville flood, and late integration with the main basin, Utah Geological Association Bonneville Conference, October 2018.

OSL age dating of two, perhaps three, pre-Bonneville deepwater pluvial lakes in Cache Valley, Utah-Idaho: Implications of their unexpected high altitudes for excavation of Cutler Narrows from a level above 1494 m (4901'), down to the present 1314 m (4310') mainly during the Bonneville lake cycle, Utah Geological Association Bonneville Conference, October 2018.

The Bear River's diversion and the cutting of Oneida Narrows at ~55-50ka and relations to the Lake Bonneville record, Utah Geological Association Bonneville Conference, October 2018.

Savitzky, Alan H.

When you thrive we all thrive: Creating a model for Native American student success and support in STEM fields, American Indian Science and Engineering Society, October 5, 2018.

Anointed and sequestered: Diverse sources of defensive cardiotonic steroids in tetrapods, Joint Meeting of Ichthyologists and Herpetologists, July 2018.

Scheiner, Stephen I.

Aerogen bond in $AeOF_2$ (Ae=Kr, Xe) complexes with diazines, 5th International Conference on Physical and Theoretical Chemistry, October 2018.

Pnicogen bond in AsF_5 complex with ammonia. Deformation of Lewis acid upon complexation, 43rd International Conference on Coordination Chemistry, August 2018.

Scherliess, Ludger

The iCCMC space weather modeling capabilities assessment: Overview of ionosphere/thermosphere activities, Mini-GEM, December 2018.

Equatorial disturbance dynamo plasma drifts and neutral winds over Jicamarca, 2018 Fall AGU Meeting, December 2018.

Estimation of F region neutral winds using the thermospheric wind assimilation model (TWAM), 2018 Fall AGU Meeting, December 2018.

Space weather model improvements with a multimodel ensemble prediction system (MEPS), 2018 Fall AGU Meeting, December 2018.

Comparison of TEC specifications obtained from a data assimilation model with Swarm/GOCE observations, 8th Swarm Data Quality Workshop, October 2018.

Specifications of the ionosphere/thermosphere system from a physics-based data Assimilation model, Seminar at GFZ, September 2018.

Variations of charged particles in the near Earth's magnetic field, SFB Data Assimilation Annual Meeting, September 2018.

Investigating the OPAL cubesat's ability to measure thermospheric gravity waves, Annual CEDAR Meeting, June 2018.

The use of ndTEC for validation of global and regional TEC, Annual CEDAR Meeting, June 2018.

Using the thermospheric wind data sssimilation model (TWAM) to estimate neutral winds in the F-region, Annual CEDAR Meeting, June 2018.

Challenge in specifying and predicting ionosphere disturbances, 42nd COSPAR Scientific Assembly, July 2018.

USU GAIM data assimilation models for space weather specification and forecasts, Space Weather Workshop, April 16, 2018.

Schneiter, Kady

Using personal activity data in an undergraduate statistics course, 10th International Conference on Teaching Statistics, July 2018.

Schunk, Robert Walter

Space weather model improvements with a multimodel ensemble prediction system (MEPS), 2018 Fall AGU Meeting, December 2018.

Challenge in specifying and predicting ionosphere disturbances, 42nd COSPAR Scientific Assembly, July 14, 2018.

USU GAIM data assimilation models for space weather specification and forecasts, Space Weather Workshop, April 16, 2018.

Seefeldt, Lance C

Going to Mars, Community Forum, 2018.

Insights into the nitrogenase mechanism, European Nitrogen Fixation meeting, 2018.

Insights into the nitrogenase mechanism, International FeS cluster meeting, 2018.

Insights into the nitrogenase mechanism, Microbiology Dept, 2018.

Insights into the nitrogenase mechanism, Penn State Symposium, 2018.

Insights into the nitrogenase mechanism, Proton Coupled Electron Transfer Meeting, 2018.

Shen, Tsung-Cheng

Carbon nanotube synthesis by feeding carbon and Fe precursor simultaneously, Molecular Foundry User Meeting 2018, August 15, 2018.

Sojka, Jan Josef

Space weather model improvements with a multimodel ensemble prediction system (MEPS), 2018 Fall AGU Meeting, December 2018.

The SAIR: An atmosphere's first line of defense against intense stellar XUV fluxes, 2018 Fall AGU Meeting, December 2018.

Long-term evolution of the geospace vlimate, Heliophysics Summer School XII, July 2018.

Planetary ionospheres, Heliophysics Summer School XII, July 2018.

Challenge in specifying and predicting ionosphere disturbances, 42nd COSPAR Scientific Assembly, July 2018.

Recovery of high-latitude topside ion EDPs during severe geomagnetic storms, June 2018.

What space weather can do to atmospheres of exoplanets, June 2018.

Heliophysics applied to a stellar-planet system, Ionosphere and Magnetosphere Workshop of the Triennial Earth-Sun Summit, May 2018.

USU GAIM data assimilation models for space weather specification and forecasts, Space Weather Workshop, April 16, 2018.

Spears, Lori Rena

Damage potential of the invasive brown marmorated stink bug on tart cherry, Great Lakes Expo, December 4, 2018.

Environmental limitations to spotted wing drosophila outbreaks in the Intermountain West, Great Lakes Expo, December 2018.

Bees at large: identifying exotic bees in the United States, Entomological Society of America Joint Annual Meeting, November 2018.

Brown marmorated stink bug feeding damage on tart cherry in Utah, Entomological Society of America Joint Annual Meeting, November 2018.

Effects of landscape structure and climate variability on beneficial insect diversity in agronomic crops of Utah, Entomological Society of America Joint Annual Meeting, November 2018.

Status of BMSB in Utah: a mountain west state, Entomological Society of America Joint Annual Meeting, November 2018.

Tracking brown marmorated stink bug in Utah's urban-agricultural landscapes, Entomological Society of America Joint Annual Meeting, November 2018.

Using bycatch to turn wanton slaughter into science, Entomological Society of America Joint Annual Meeting, November 2018.

Landscape ecology of beneficial insects in agronomic crops of Utah, Society for Advancement of Chicanos/Hispanics and Native Americans in Science, October 2018.

Brown marmorated stink bug in the urban landscape of northern Utah: host plants, trap efficacy and biological control, Pacific Branch of the Entomological Society of America 102nd Annual Meeting, June 2018.

Brown marmorated stink bug overwintering success and survey for natural enemies in Utah, Pacific Branch of the Entomological Society of America 102nd Annual Meeting, June 2018.

Impact of BMSB on fruit and vegetable production in Utah, a Mountain West State, Pacific Branch of the Entomological Society of America 102nd Annual Meeting, June 2018.

Landscape ecology of beneficial insects in agronomic crops of Utah, Pacific Branch of the Entomological Society of America 102nd Annual Meeting, June 2018.

Hands-on pest identification and scouting methods, Urban and Small Farms Conference, February 2018.

Update on brown marmorated stink bug and spotted wing drosophila, Urban and Small Farms Conference, February 2018.

Invasion history of brown marmorated stink bug in Utah, Orchard Pest and Disease Management Conference, January 2018.

Stevens, John R

Effects of lactation and negative energy balance on endometrial expression of selected transcripts of Holstein dairy cows at day 7 post-ovulation., American Society of Animal Science Meeting, July 2018.

Sun, Yan

Geostatistics and its applications, Invited Presentation, College of Agriculture and Applied Sciences, Utah State University, October 2018.

A linear model for interval-valued data and its shrinkage estimator, The 17th International Conference on Information and Management Sciences, August 2018.

Symanzik, Juergen

Eye-tracking in practice: The EyeTrackR R Package and its use in a study on human postures, 2018 Statistics Week Taiwan, November 9, 2018.

100+ years of graphs of the Titanic data, COMPSTAT 2018, August 2018.

Eye-tracking in practice: Results from a study on human postures, 2018 Joint Statistical Meetings, July 2018.

Let's talk about the weather, 2018 Joint Statistical Meetings, July 2018.

Takemoto, Jon Y

In vitro muscular atrophy model with suspended muscle fibers, American Society for Gravitational and Space Research (ASGSR), October 2018.

Taylor, Michael John

International collaborative studies of atmospheric waves using an advanced mesospheric temperature mapper, AGU Fall meeting, December 2018.

Comparison of high latitude gravity wave activity using SOFIE and AMTM temperatures in both winter hemispheres (update), AIM workshop, November 2018.

Mountain waves observed in the Southern Andes, AIM workshop, November 2018.

Investigating winter-time mesospheric gravity waves variations observed at ALOMAR (69° N), Norway, 2018 Annual Meeting of the APS Four Corners Section, October 2018.

Mesospheric temperature measurements of mountain waves, VII SBGEA Symposium, October 2018.

Different propagation characteristics of mesospheric gravity waves over Syowa and Davis, the Antarctic, using OH airglow imagers and MF radars, 42nd COSPAR assembly, July 2018.

Investigating gravity waves using an advanced mesospheric temperature mapper, 42nd COSPAR assembly, July 2018.

The atmospheric waves experiment (AWE) on the International Space Station, 42nd COSPAR assembly, July 2018.

Investigating winter-time mesospheric gravity waves variations observed at ALOMAR (69° N), Norway, CEDAR workshop, June 2018.

ANGWIN action group proposal, SCAR conference, June 2018.

ANGWIN History, 4th ANGWIN workshop, April 2018.

ANGWIN research activities at Utah State University: Summary and future plans, 4th ANGWIN workshop, April 2018.

Different propagation characteristics of mesospheric gravity waves in Syowa and Davis, in the Antarctic, using OH airglow imagers, 4th ANGWIN workshop, April 2018.

First Coordinated AMTM and Fe lidar Measurements at McMurdo, Antarctica, 4th ANGWIN workshop, April 2018.

Gravity Wave Ducting over Antarctica, 4th ANGWIN workshop, April 24, 2018.

Investigating Mesospheric Wave Activities at High Latitude Stations and South Pole, 4th ANGWIN workshop, April 24, 2018.

Investigation of Mesospheric Gravity Waves over South Pole and McMurdo Stations Using two Advanced Mesospheric Temperature Mappers, 4th ANGWIN workshop, April 24, 2018.

Gravity wave investigations during DEEPWAVE (using an advanced mesospheric temperature mapper), EGU General Assembly 2018, April 2018.

Investigating gravity waves using an advanced mesospheric temperature mapper, MS-GWaves 4th Workshop, March 19, 2018.

Varela, Oscar

A 10D/4D/3D triangle, Seminar at UAM, Madrid, December 2018.

Unificación y Teoría de Cuerdas, Las Charlas del GREL, November 2018.

Unificación y Teoría de Cuerdas, Charlas de la Residencia de Estudiantes, November 2018.

The holography of simple Chern-Simons theories, Brinsop Court meeting, September 2018.

The holography of simple Chern Simons theories, Cosmology and gravitational physics with Lambda workshop, August 2018.

Spectrum universality properties of holographic Chern-Simons theories, seminar at UCLA, April 2018.

The holography of simple Chern-Simons theories, Southwest holography meeting, March 2018.

von Dohlen, Carol D

Going native: Aphid colonization of South America, Annual Meeting of the Entomological Society of America, November 2018.

Wang, Zhi Qiang

Localized nodal solutions for NLS, Seminar talk, August 2018.

Localized nodal solutions for NLS, Invited talk, Workshop on Variational Methods, August 2018.

Localized nodal solutions for NLS, Seminar talk, July 2018.

Nonlinear scalar equations, Plenary lecture, Conference on Variational Problems arising from Physics and Geometry, Rauischholzhausen Castle, Germany, July 2018.

Functional inequalities and applications, Invited lecture, Memorial meeting for Prof. Shi Shuzhong, Nankai University, July 2018.

Localized nodal solutions for NLS, Seminar talk, July 2018.

Localized nodal solutions for NLS, Workshop on Nonlinear Analysis and Variational Methods, Guizhou minzu University, June 2018.

Localized nodal solutions for NLS, Invited lecture, Conference on Nonlinear Functional Analysis and Applications, Dalian Institute of Technology, June 2018.

Localized nodal solutions for NLS, Invited talk, Special Session on Partial Differential Equation--Elliptic and Parabolic, the Joint International Meeting of the American Mathematical Society and the Chinese Mathematical Society, June 018.

Localized nodal solutions for NLS, Invited talk, International workshop on nonlinear partial differential equations and applications in geometry and biology, Xi'an Normal University, June 2018.

Localized nodal solutions for NLS, Seminar talk, May 2018.

A class of quasilinear elliptic equations via a regularization approach, Plenary lecture, Workshop on Nonlinear Analysis, the Juliusz P. Schauder Center for Nonlinear Studies at the Nicolaus Copernicus Univ, Torun, Poland, May 2018.

Localized nodal solutions for NLS, Beijing Normal Univ -- Henan Normal University meeting on Nonlinear PDEs, March 2018.

A class of quasilinear elliptic equations via a regularization approach, Meeting on Nonlinear Analysis, Fujian Normal University, March 2018.

Localized nodal solutions for NLS, Seminar talk, March 2018.

Localized nodal solutions for NLS, Seminar talk Harbin Engineering University, March 2018.

A class of quasilinear elliptic equations via a regularization approach, Invited talk, 2-nd Italy-Chile Nonlinear PDE meeting, January 2018.

Localized nodal solutions for NLS, Seminar talk, January 2018.

Waring, Bonnie Grace

Investigating the below ground fate of plant-derived carbon, Dartmouth College Cramer Seminar Series, October 2018.

Microbial and mineralogical controls on soil organic matter formation across temperature gradients, Ecological Society of America 103rd annual meeting, August 2018.

Wheeler, James Thomas

Matter sources in biconformal spaces, NSBP 2018 annual conference poster presentation, November 2018.

U(1) gauge theory in biconformal space, APS 4 Corners 2018 annual meeting, October 2018.

Wickwar, Vincent B

Mesospheric density climatology from Rayleigh scatter lidar above ALO-USU, AGU Fall Meeting, December 2018.

Comparison of mesospheric densities and temperatures from the SABER instrument on NASA's TIMED satellite and USU's ALO Rayleigh-scatter lidar, 2018 Annual Meeting of the APS Four Corners Section, October 2018.

Investigation of two anomalous thin layers descending through the lower mesosphere and upper stratosphere, 2018 Annual Meeting of the APS Four Corners Section, October 2018.

Obtaining absolute neutral densities in the mesosphere using Rayleigh-scatter lidar observations with reanalysis models, 2018 CEDAR Workshop, June 2018.

Wolf, Paul G

Genomic diversity of the Hawaiian endemic *Oreogrammitis hookeri* (Polypodiaceae), Botany 2018, July 2018.

Incorporating a fern genome into land plant evolutionary genomics, Botany 2018, July 2018.

Mobile elements may be shaping plastome evolution in ferns, Botany 2018, July 2018.

Population admixture in the cosmopolitan fern genus, *Pteridium* (Dennstaedtiaceae), Botany 2018, July 2018.

Genomic tools for Studying Plant Evolution, Invited Seminar, June 2018.

Yuan, Tao

Probing the boundary layer of neutral atmosphere using a unique Na lidar system, October 2018.

MLT response to solar eclipse observed by USU Na lidar, CEDAR, June 2018.

What the lidar can do in addition to small-scale gravity waves, CEDAR, June 2018.

Mesosphere and lower thermosphere wind and temperature changes during the 17 March 2013 St. Patrick day's storm, Asia Oceania Geosciences Society (AOGS), June 2018.

The physical mechanism driving the effects of a geomagnetic storm on the mesosphere and lower thermosphere temperature at middle latitudes, Asia Oceania Geosciences Society (AOGS), June 2018.

The long-term variations of nocturnal mesopause temperature and altitude revealed by the Na lidar observations between 1990 and 2017 at mid-latitude, 10th Workshop on Long-term changes and trends in the atmosphere, May 2018.

Zhu, Lie

Challenge in specifying and predicting ionosphere disturbances, 42nd COSPAR Scientific Assembly, July 2018.

USU GAIM data assimilation models for space weather specification and forecasts, Space Weather Workshop, April 2018.