SABBATICAL REPORT
2017-2018
PRISCILLA ALLEN, PROFESSOR

Social Work

Dr. Priscilla Allen’s sabbatical advanced her statewide and international reach related to social work in long term care. She submitted three papers, a grant through Centers for Medicare and Medicaid Services, and served as an invited Chair for a session for the 5th Annual Congress of Gerontology and Geriatrics in Fukuoka, Japan. Dr. Allen collaborated with experts in Ohio and Louisiana to develop the content on trauma and older adults. She was requested to provide contract work on two national grants: one to participate on a large National Institute of Health grant related to suicide in the nursing home arena, which is very exciting and very applicable to her research expertise and experience; and another to review ombudsman research and complaints in the long term care area. She developed a special call for papers based on the devastation of this hurricane season for Reflections: Narratives of Professional Helping. Dr. Allen also accepted an assignment to serve as an editor in gerontology.

FRANK ANSELMO, ASSOCIATE PROFESSOR

French Studies

Several years ago, Professor Frank A. Anselmo happened to come across an unusual site on the edge of a cornfield in the French region of Alsace: the grave of a single American officer killed at the age of twenty in Alsace during World War II. Intrigued by this site, Professor Anselmo began conducting extensive research on the young man who was buried in this grave, what motivated of the people who erected the memorial marker, and who continue to maintain the site today. He researched military archives and personal collections and conducted numerous interviews across France and the United States. During Professor Anselmo’s sabbatical leave this past spring 2018, he began to compile his research into a book-length manuscript. Professor Anselmo made tremendous progress toward the completion of the manuscript, writing eleven of the currently planned fifteen chapters as well as an introduction to his work.
YURI ANTIPOV, PROFESSOR
Mathematics

Dr. Yuri Antipov submitted proposals to the Army Research Office, the Air Force Summer Faculty Fellowship Program, both of which were funded in 2017, and to the Simon Foundation during his sabbatical in the fall of 2016. The proposals covered a variety of topics including elastodynamics and dynamic thermoelasticity. In November 2016, Dr. Antipov made a research visit to England, supported by a London Mathematical Society grant, where he gave lectures at the University of Cambridge, the University of Liverpool, the University of Bath, Brunel University, University College London, and Imperial College. Dr. Antipov later visited colleague H. Gao at Brown University and worked with him on non-uniform crack motion. Dr. Antipov also worked in Florida with researchers from Eglin Air Force Base on modeling flight dynamics of a thermos-elastic aircraft. He gave presentations about his results at Congress ICTAM2016 in Montreal, Canada, and a SIAM conference. Lastly, Dr. Antipov attended seminars on differential equations at the University of Memphis, inspiring him to work on the Cox-Ingersoll-Ross equation arising in financial mathematics.

LYNNE BAGGETT, PROFESSOR
Art

Professor Lynne Baggett visited three locations as part of her fall 2016 sabbatical project. Over the course of her travels, approximately 2,000 photographic images were taken. Professor Baggett returned to gravestone sites to re-shoot images deemed integral to the comparative study of stones featured on her website and in her exhibition. By using advanced technology (macro lens, GPS metadata, portable LED lighting), Professor Baggett was able to capture improved resolution of images. She also presented a lecture, “A Letterform Primer, A Comparative Study of Incised Letterforms and Typography”, at the New England Chapter of the Association for Gravestone Studies fall meeting in Worcester, Massachusetts. During her sabbatical, Professor Baggett completed a grant application for the Center for Craft Creativity and Design and was awarded support for personal travel and a stipend for six co-collaborators to the website. She also applied for the “Faculty & Junior Faculty Travel Grant Program” through the Office of Research & Economic Development and was awarded $1,000 with matching funds from the School of Art to include images from other sites of interest while traveling in the United Kingdom. The results of her research are now currently on exhibit. “Letterform Characters from Stone Carver to Type Designer” was exhibited at the LSU Libraries Special Collections at Hill Memorial Library [October 2017 – February 2018]. Professor Baggett’s blog is also complete and may be found at the following link: http://ligs2lichen.wordpress.com.
SCOTT BALDRIDGE, PROFESSOR

Mathematics

Dr. Scott Baldridge utilized his sabbatical in fall 2016 to work on a new paper, “Lifting Lagrangian immersions in $\mathbb{CP}^{n-1}$ to Lagrangian cones in $\mathbb{C}^n$”, covering special Lagrangian cones. These cone-like objects are a main ingredient in understanding a famous conjecture on mirror symmetry in physics. Mirror symmetry is an important part of one the most promising models of a unified theory of physics, [i.e., Einstein’s dream of a theory that encompasses both gravity and quantum mechanics]. Pictured is an example of a Lagrangian torus in four-dimensional space that gives rise to a cone in six dimensional space. Dr. Baldridge also had the opportunity to work on another paper, “Quantity and Measurement”, which precisely defines notions of quantities and rates in a logically rigorous way that is compatible with PK-16 curriculum. The paper continues the foundational work of two great mathematicians: Holder [1903] and Whitney [1968]. The results of this paper are important in that they point to ways of modifying existing college-level calculus courses to be more aligned with the actual meaning and uses of calculus.

COURTNEY BARR, ASSOCIATE PROFESSOR

Art

Through her “Visualizing Genetic Relationships” project, Professor Courtney Barr developed a body of data-driven artwork that communicates complex scientific information, specifically human genetic data, in a way that is compelling and accessible to both scientific and non-scientific audiences. During her sabbatical in spring 2017 Professor Barr developed a custom color font, which she utilized to translate DNA base pairs into a color-coded set of graphic symbols. Professor Barr designed a series of creative data visualizations that make meaningful visual comparisons of genetic information between related individuals with this technique. She envisions the possibility of developing a system of DNA visualization that can be uniquely customized to the individual or potential client, for a multitude of end-products, from fine art prints to custom DNA textiles. The tool Professor Barr created during her sabbatical can be patented and marketed to designers as a resource for developing DNA visualizations.
INESSA BAZAYEV, ASSOCIATE PROFESSOR

Music

During Professor Inessa Bazayev’s sabbatical, she finished her book project--Analytical Approaches to Twentieth-Century Russian Music. The book has already successfully passed the initial round of reviews by the Cambridge University Press, and she is awaiting their final review within a month’s time, which she expects to be positive. In April 2018, Professor Bazayev was invited to Columbia University's Sergei Prokofiev Archive to deliver a paper on his music, as well as be part of a roundtable discussion. Additionally, Professor Bazayev was invited to contribute a chapter on Stravinsky in Paris in the 1920s, which was submitted for publication on 1 May 2018 [forthcoming, Stravinsky in Context, Cambridge University Press, 2020].

SARAH BECKER, ASSOCIATE PROFESSOR

Sociology and Women and Gender Studies

Dr. Sarah Becker was able to draft a near-complete version of her first scholarly monograph and submit a competitive grant application to the Louisiana Board of Regents' ATLAS program during her sabbatical semester in fall 2016. Dr. Becker also had the opportunity to prepare a book proposal for academic press consideration. Dr. Becker was honored to have one of her manuscripts accepted at a top journal and submitted a new manuscript with LSU faculty and student collaborators. She made significant progress on two separate manuscripts with undergraduate and graduate student co-authors. Dr. Becker stayed publicly engaged by sharing her research with Humanities Amped students at McKinley High in Baton Rouge, La., and was honored with news channel WAFB Channel 9's "Power of 9" award for her work with the Baton Rouge Garden Alliance.
BRETT BOUTWELL, ASSOCIATE PROFESSOR  
Music

Dr. Brett Boutwell researched and wrote a substantial portion of a monograph concerning the life and the role of ambivalence as a creative impulse in the work of Morton Feldman, an American composer active between the 1950s and 1980s, during his spring 2017 sabbatical. The book will be submitted to the University of Illinois Press for publication in their series “American Composers.” Dr. Boutwell also secured the acceptance of a journal article on an unrelated topic for publication in the journal “Modernism/Modernity,” titled “Keller's Zak, Duchamp's Mutt, and the Art of the Ruse.” In addition to this, Dr. Boutwell submitted a successful proposal to present new research at the upcoming 2017 national meeting of the American Musicological Society, and wrote a book review for the Journal of the Society for American Music.

JINX COLEMAN BROUSSARD, PROFESSOR  
Public Relations

Dr. Jinx C. Broussard co-authored a crisis communication manuscript with a colleague during her spring 2017 sabbatical. She also wrote a book chapter about Ida B. Wells in another book, substantially revised and resubmitted a journal article about black celebrity journalism, compiled primary sources, and discussed a book proposal about Black Nationalist editor Amy Garvey with a national publisher.

JEREMY BROWN, ASSOCIATE PROFESSOR  
Biological Sciences

Phylogenetics, the study of the genealogical relationships among all living things, is central to all modern biological research and has been the basis of Dr. Jeremy Brown's research program for more than 15 years. This picture, taken at the amazing Melbourne Museum, is a wonderful example of outreach that highlights both how phylogenetic studies are conducted and how they can be used to understand the unique flora and fauna of every region in the world. While in Australia, Dr. Brown was able to collaborate with some of the world’s best phylogenetics researchers, including submission of a manuscript to Nature, and he was able to develop new analytical skills that he is already applying to ongoing research projects and classes. Dr. Brown was also able to design a new course in computational biology, which he is teaching this fall.
DELBERT BURKET, PROFESSOR

Religious Studies

Dr. Delbert Burkett completed a book manuscript during the 2016-2017 school year. It is entitled The Case for Proto-Mark: A Study in the Synoptic Problem and was submitted to Mohr Siebeck, a well-respected academic press in Germany, where it was accepted for publication and is currently in production. The book addresses the question of what literary sources were used by the three Synoptic Gospels of the New Testament (Matthew, Mark, and Luke). Dr. Burkett is known for reviving a theory that was widely accepted in the nineteenth century, called the Proto-Mark hypothesis. In this theory, all three Synoptic evangelists copied from a document now lost, which scholars call “Proto-Mark” [an earlier version of the current Gospel of Mark]. Dr. Burkett’s book presents new evidence in support of this theory. He also made the necessary revisions for a second edition of his textbook, An Introduction to the New Testament and the Origins of Christianity. Dr. Burkett submitted the completed manuscript to Cambridge University Press, where the new edition is now in production. In addition, he completed four journal articles and submitted them to the top two journals in his field. One of these articles, entitled “The Parable of the Unrighteous Steward (Luke 16:1-9): A Prudent Use of Mammon,” has been reviewed and accepted for publication in the journal New Testament Studies.

LES BUTLER, PROFESSOR

Chemistry

Dr. Les Butler was granted an APS Visiting Scientist Position with funding for one month of salary during his sabbatical, which lasted through the 2016-2017 school year. He spent six weeks at APS, the nation’s largest synchrotron, to convert his Mathematica codes for X-ray interferometry into Python, included in the APS tomopy project. In addition, he was granted six days of beamtime to explore the recent National Institute of Health invention of far-field interferometry. Dr. Butler worked to develop neutron interferometry/tomography at the Spallation Neutron Source, Oak Ridge National Laboratory, which will be a major step forward for neutron imaging science in the United States. He aimed to kickstart an LSU company, the “Refined Imaging”, into production of optics for X-ray and neutron interferometry. The company has submitted its first Small Business Innovation Research application with more to come. Dr. Butler's research group is applying X-ray interferometry to study the incorporation of Albemarle's flame retardants into 3D polymer print filaments. His sabbatical work also allowed for novel interferometer/tomography system to be constructed in the LSU Department of Chemistry.
ELENA CASTRO, PROFESSOR

*Foreign Languages and Literatures*

Dr. Elena Castro’s spring 2017 sabbatical sent her to Spain to consult and gather rare and primary materials necessary for her third book project. In Madrid and Barcelona, she undertook archival research at different university and foundation libraries, including the library at the University of Barcelona, where she was named an Invited Research Faculty Member. In addition to undertaking this extensive research, Dr. Castro delivered four invited public talks, including one sponsored by the European Community. By her sabbatical’s end, she had written the second chapter of her new monograph, finalized its contract with a highly-respected academic publisher, written an invited essay for an academic, peer-reviewed international journal based in Poland, and reached the final stages of completing two articles (one appearing in a special issue of an international journal based in Italy, and one appearing in a volume published by the Sorbonne in France) related to the results of her sabbatical investigation.

DENYCE CELENTANO, ASSOCIATE PROFESSOR

*Art*

Professor Denyce Celentano made significant changes in her working methods. She moved from representational, figure and landscape paintings to non-objective abstraction, and she was able to produce a body of work that was shown in a solo exhibition in March 2018 at the Cole Pratt Gallery in New Orleans. Her work was also accepted for publication in Studio Visit magazine. Professor Celentano is currently working on exhibiting her work with other gallery affiliations in New York, Minnesota and Texas. She believes the unfettered time the sabbatical leave provides for studio/research focus is so beneficial, and the university/departments deserve thanks for providing these opportunities. The painting depicted is a representative of Professor Celentano’s work during and since her sabbatical in spring 2017. It is specifically focused on color and form to represent a more internalized state.
MICHAEL CHERRY, PROFESSOR

Physics & Astronomy

Dr. Michael Cherry was able to work on a new Terrestrial Gamma Flash (TGF) and Energetic Thunderstorm Rooftop Array (TETRA-II) experiment in order to study high energy radiation from lightning during spring 2017. As a result of the last year of work, TETRA-II is now installed and operational at the University of Puerto Rico-Utuado, the Panama National Center for Metrology (CENAMEP) in Panama City, the Lightning and Severe Weather Laboratory of the University of Alabama at Huntsville, and on the roof of the Physics & Astronomy Building at LSU. The set of four TETRA-II arrays currently comprise the largest and most sensitive ground-based TGF detectors in the world. Its first events have been observed, and initial results were presented at two international meetings in Canada and South Africa in August 2017.

LAURA CHOATE, PROFESSOR

Education

During Dr. Laura Choate’s sabbatical leave, she completed two chapters towards her book, Depression in Girls and Women Across the Lifespan under contract with Routledge Press. She also made a presentation on “Ethical Issues in the Treatment of Eating Disorders” at the national Ethical and Legal Issues in Counseling conference in February, 2018. Dr. Choate’s invited book chapter of the same title, "Ethical Issues in the Treatment of Eating Disorders" was published in the Cambridge Handbook of Applied Psychological Ethics [Cambridge University Press, 2018] around the same time. Unexpectedly, she was contacted to do an expert interview on mothers’ influence on their daughter’s body image for the national Dove Campaign for Real Beauty [video to be released soon] and was also contacted to conduct a national 2-hour webinar on the treatment of eating disorders for the site www.GoodTherapy.org. Dr. Choate’s sabbatical focus was extended to include her expertise in the prevention and treatment of eating disorders. She also completely redesigned two classes that she regularly teaches, in order to greatly improve the quality of both courses.
GEOFF CLAYTON, PROFESSOR  
*Physics & Astronomy*

Dr. Geoff Clayton worked intensely on one of the main areas of his research, the R Coronae Borealis (RCB) stars, during his spring 2017 sabbatical. He was able to enhance the quality of his research through the opportunity to investigate new avenues to understand the behavior and evolution of RCB stars. During his leave, Dr. Clayton worked with his collaborators and presented his results to multiple audiences. He spoke at the Armagh Observatory and at Queen’s University Belfast about the pulsations and declines in RCB stars. By visiting a number of institutions, Dr. Clayton was able to raise the profile of LSU as a research university. The ability to work closely with others in his field also leads to more quality research. Dr. Clayton worked on several publications during his sabbatical, including "Circumstellar Dust Shells: Clues to the Evolution of R Coronae Borealis Stars", "The Evolution of the R Coronae Borealis Stars", and "The Role of Dredge-Up in Double White Dwarf Mergers".

LAUREN COATS, ASSOCIATE PROFESSOR  
*English*

During her sabbatical year, Dr. Lauren Coats was awarded a prestigious National Endowment for the Humanities grant in digital humanities. She created a digital edition of a nineteenth-century literary magazine edited by famed author Edgar Allan Poe that shares new scholarship about authorship and literary production in this era [and is available freely online], and published an essay about Poe and nineteenth-century literary culture with Oxford University Press.

DANIEL COHEN, ASSISTANT PROFESSOR  
*Mathematics*

Among other opportunities, Professor Daniel Cohen's sabbatical leave enabled him to serve as a Simons Visiting Professor [supported by the Mathematisches Forschungsinstitut Oberwolfach and by the Simons Foundation] while he attended the “Topology of Arrangements and Representation Stability” workshop at Oberwolfach, and subsequently visited several institutions in Germany. One of these was Ruhr-Universitat Bochum, where he was hosted by Professor Gerhard Rohlre [shown with Professor Cohen in the included photo], and was able to interact substantively with his research group in algebra, Lie theory, and hyperplane arrangements. While serving as a Simons Visiting Professor, Professor Cohen was able to lecture extensively, publicizing various aspects of his research program at both Ruhr-Universitat Bochum and Universitat Bremen, establish new research connections, pursue a number of recently completed and ongoing research projects, and work on an ongoing multiple author research level book project.
CRAIG E. COLTEN, PROFESSOR

Geography & Anthropology

In the 1930s, a geographer named Fred Kniffen, one of the founding geographers of LSU’s geography department, traversed the highways of Louisiana and created note cards that included the features and characteristics of thousands of folk houses. It wasn't until years later that inventories of this sort became common place as part of cultural resource inventories carried out in many other states. Unfortunately, those structures are now mostly demolished. Dr. Craig E. Colten spent his spring 2017 sabbatical seeking out a new approach to capture the landscapes left along the blue highways by creating driver’s-eye view, time-lapse recordings across over 5,000 miles of the states’ routes. The videos expose the dereliction that followed the construction of the interstate highways and the decay of small towns, as well as the multiple layers of landscape change in the roadside vernacular architecture. His use of a time-lapse video technique will enable others to view the same landscape changes at a state-wide scale and retrace his journeys in a fraction of the time. Viewers will be able to partake in this visual experience from the vantage point of the driver as well as share, to an extent, the travails of the journey.

KEVIN COPE, PROFESSOR

English

Dr. Kevin Cope’s sabbatical leave was a period of rich activity and considerable achievement. During this interval, he was able to complete three studies on offbeat topics that could never have been explored without the benefit of additional research time. Those topics included the question of distance and its conceptualization during the Enlightenment, a question that underlies our contemporary interest in space travel, exploration, and even tourism; the history of the urban parks of London, a window into the urban planning and environmentalists movements that continue with us today; and the adventures of Maria Graham, a hemisphere-traversing solo female traveler of the eighteenth and early nineteenth centuries and a remarkable case in the area of gender studies. Additionally, Dr. Cope was able to organize and begin three other large projects: a book on the joke as a literary form during the eighteenth century; a book on the underground world of the eighteenth century; and a book on the faculty role in academic leadership.
BRANNON COSTELLO, ASSOCIATE PROFESSOR

English

Dr. Brannon Costello’s spring 2018 sabbatical allowed him to make substantial progress on his ongoing book project, Superheroes, the South, and the Borders of Comics Studies. Superheroes are often associated with the gleaming ultra-modernism of futuristic cities, as well as with an idea of the United States as enlightened, liberal, and virtuous, while the South is often regarded as the nation’s abject Other, its swamps and wildernesses the site of all the nation must repress. Dr. Costello’s project explores the ways in which southern-set superhero narratives provide a rich site for investigating this dynamic between nation and region, often producing productive dissonances and frictions that emphasize the processes of disavowal, imaginative containment, and official forgetting central to the construction of the nation as modern and enlightened and providing a powerful new set of images and metaphors for re-imagining the South as a part of the nation’s future.

JOHN J. COSTONIS, PROFESSOR

Paul M. Hebert Law Center

Professor John J. Costonis was at the forefront of the effort assessing the legal dimensions of the BP/Deepwater Horizon form shortly after its occurrence in April 2010. The topic was natural to him, given his experience with the legal aspects of the sea and, in particular, Louisiana’s estuarine land loss and coastal sea rise challenges. Over the last six years, Professor Costonis published a number of articles in national and Louisiana law reviews on different dimensions of a disaster unprecedented in complexity, regional economic loss and environmental upheaval. Litigation arising from the disaster engaged over 100,000 private claimants, six states, the federal government and numerous foreign governments. Among the key defendants of these were BP, Transocean and Halliburton. Principal among, but by no means inclusive of, all sources of law in play were constitutional law, admiralty law, environmental law, administrative law, maritime tort and contract law, oil and gas law, and the legal systems of the six gulf states. Professor Costonis’s sabbatical in fall 2016 was spent evaluating the capacity of the legal system to integrate these components in an undertaking of this complexity.
ERIN COYLE, ASSOCIATE PROFESSOR

Communication

Dr. Erin Coyle uses legal and historical research methods to address editors’ advocacy role, press freedom, and journalists’ access to information. During her sabbatical leave, she traveled to three states to review legal documents, correspondence, and publications that address press freedom and journalists’ access to information. She also gathered and reviewed archival materials related to free press and fair trial rights and press responsibility. Professor Coyle is analyzing the materials to write articles that analyze: 1) how courts and journalists have perceived press coverage of high-profile crimes and trials and threats to fair trial rights for criminal defendants and 2) how related news coverage inspired calls for greater press responsibility. Working with two students, she also completed a manuscript on editors’ advocacy for Louis D. Brandeis to become a U.S. Supreme Court Associate Justice. Professor Coyle and another student also completed a second manuscript on how states address privacy interests and rights to access 9-1-1 call recordings.

JOHANNA COX, PENNINGTON ASSOCIATE PROFESSOR

Music

In April of 2017, Professor Johanna Cox was awarded an ATLAS grant to record an album of world premiere music for oboe and English horn. During the sabbatical, she rehearsed and recorded five pieces of music for oboe and English horn which she commissioned. The final piece on the album, a concerto for English horn and orchestra, was recorded with the Louisiana Philharmonic Orchestra, conducted by Carlos Miguel Prieto. This recording project was a huge undertaking. Everything from scheduling and planning rehearsals to contracting with the orchestra, musicians, recording company and recording studio was accomplished. It also required a significant amount of rehearsing and practicing to prepare for each recording session. The recording process is now complete and Albany Records will release the CD in 2018. Professor Cox is extremely proud of this accomplishment.
JENNIFER CURRY, PROFESSOR

_Counselor Education_

Dr. Jennifer Curry worked one-on-one with school counselor Shauna Hobbs at Grand River Academy. She discussed the diversity of learners at the school and how apprenticeship programs are best tailored to the unique needs of individuals. In Ms. Hobbs’ experience, working with students who have been through alternative education, special education, gifted and talented, etc., the role of student self-advocacy was predominant. Ms. Hobbs greatly informed Dr. Curry’s work in the greater New Orleans area and how to better transition students with special needs into the workplace and college, leaving them fully prepared to handle the challenges of both environments. Part of the joy of Dr. Curry’s sabbatical was working hands on with counselors and other educators to insure that the results of her work would be both scholarly and practical. There are over 105,000 school counselors in the country and Dr. Curry wanted to be sure that what she has written is meaningful and applicable to their daily work.

PALLAVI DANI, ASSOCIATE PROFESSOR

_Mathematics_

Dr. Pallavi Dani spent Fall 2016 participating in a special program on geometric group theory. Through seminars, reading groups and discussions, she was able to learn about new trends across the field, which will have a lasting impact on her research. Dr. Dani has embarked on new directions in her research and begun several new collaborations, including two with researchers in France. Her papers “Commensurability for Certain Right-Angled Coexter Groups and Geometric Amaglams of Free Groups” and “Bowditch’s JSJ Tree and the Quasi-Isometry Classification of Certain Coexter Groups” were both accepted for publication in the journals Groups, Geometry and Dynamics and Journal of Topology respectively. Being a part of this selective program has increased Dr. Dani’s visibility in the field, and she has received multiple invitations to present her work at conferences with international impact. During Spring 2017 she visited Cornell as the 2016-17 AWM-Cornell Michler Fellow, where she collaborated with T. Riley on a research project. As the Michler fellow, Dr. Dani was honored by the AWM in a special ceremony at Cornell, where she was able to speak about her research. The photograph above was taken during her speech.
MARGARET H. DEFLEUR, PROFESSOR

_Manship School of Mass Communication_

The major purpose of Dr. Margaret H. DeFleur’s fall 2016 sabbatical leave was to begin her work on the fifth edition of a successful book, *Fundamentals of Human Communication: Social Science in Everyday Life*, which incorporates relevant theories, research and practical applications from social science disciplines into the study of human communication. Much has changed since the first edition of this text was published, so the fifth edition required more significant changes. Dr. DeFleur and her co-authors completed a detailed proposal with revised chapter outlines and new features, which was then sent to reviewers by the publisher. The reviewers’ comments were analyzed and incorporated into the final plan. Dr. DeFleur and her team determined final assignment of responsibilities and began in-depth research for chapter revisions. They drafted some of the revised chapters for the book and will continue throughout the year to completion and, later, publication.

HUANGEN DING, PROFESSOR

_Biological Sciences_

Dr. Huangen Ding spent his sabbatical leave in spring 2017 at the Wenzhou Medical University in China. During the spring semester, he spent time in Professor Jianxin Lyv’s laboratory, working on a research paper titled “Anaerobic Copper Toxicity and Iron-Sulphur Cluster Biogenesis in Escherichia Coli”, which was published in the Applied and Environmental Microbiology journal. The paper covered the copper cytotoxicity and iron-sulfur cluster biogenesis in bacteria. Copper is one of the common pollutants in Wenzhou, and Dr. Ding’s findings demonstrated that iron-sulfur proteins in cells are the major targets of copper toxicity, especially under anaerobic conditions. Dr. Ding and his collaborators also developed a new research project on the mitochondrial protein Miner2 and created a Miner2-deleted mouse model. The new animal model will allow scientists to explore the physiological functions of this newly discovered iron-sulfur protein in mitochondria. Dr. Ding and his associates are expecting to continue the collaborative effects on this new project. Dr. Ding believes his sabbatical leave has provided a great opportunity to enhance his collaborative research, expand the research area to animal models, and promote LSU in China.
JONATHAN DOWLING, PROFESSOR

Physics & Astronomy

Dr. Jonathan Dowling spent the bulk of his sabbatical at UT Center for Quantum Systems. Dr. Dowling also spent 4 weeks at the University of Science and Technology in Shanghai, China, where he is now a Distinguished Visiting Fellow of the Chinese Academy of Sciences. Additionally, he has completed two of the six chapters of his new book, Schrödinger’s Web – The Race to Build the Quantum Internet, which he is using in the graduate course PHYS 7353 this fall. Overall, the sabbatical allowed for significant research collaborations that have resulted in seven papers being submitted for peer-reviewed publications. Also, the time allowed Dr. Dowling to solidify the QCMC conference in March and put LSU on the map as an international hub for quantum technologies.

BARBARA DUTROW, PROFESSOR

Geology & Geophysics

Dr. Barbara Dutrow had the opportunity to use state-of-the-art instrumentation and a Cameca 1280 large radius Secondary Ion Mass Spectrometer at the SwissSIMS facility at the University of Lausanne during her sabbatical, which lasted through the 2016-2017 school year. Dr. Dutrow measured oxygen and boron isotopes in-situ at ten micrometer resolution in the minerals tourmaline and quartz to determine paleo-temperatures of mineral growth and infiltration of fluid flow in ancient continental crust. Such data allows scientists to reconstruct past geologic environments, long vanished from the Earth. For example, isotopic measurements were made on a 2.8 billion year-old tourmaline that showed, for the first time, that tourmaline’s oxygen isotopic composition is maintained for billions of years and is not subject to diffusion. In addition, analyses of co-existing quartz permitted calculations that the mineral pair grew at about 500oC, requiring deep burial within the crust. Several other tourmalines analyzed record information on other types of geologic environments and allow deciphering fluid flow and fluid-rock interactions in the subsurface, in minerals from the present time to the Archaen.
**EMILY ELLIOTT, PROFESSOR**

*Psychology*

This photo depicts Dr. Emily Elliott, graduate students in Music Theory Elizabeth Monzingo and David Baker, and a statue of Mozart. It captures the musical spirit of Dr. Elliott’s sabbatical. She established a new collaborative relationship with Daniel Müllensiefen, who holds appointments at Goldsmiths, London, and in Hamburg, Germany. Dr. Elliott submitted a manuscript with her colleagues in auditory distraction research, John Marsh of the University of Lancaster in the UK, and Patrik Sörqvist at the University of Gavle in Sweden. She submitted a major Registered Replication Report in a top-tier journal in Psychology with co-author, Candice Morey, from Cardiff University. This work proposed to spearhead a multi-lab, multi-country replication of one of the hallmarks of children’s rehearsal processes in memory. Finally, Dr. Elliott established a new collaborative relationship with Felix Henninger at the University of Koblenz-Landau in Germany, working with a new programming tool called lab-js.

**JORI ERDMAN, PROFESSOR**

*Architecture*

Professor Jori Erdman’s main project during her Fall 2016 sabbatical was writing two chapters of a collaborative book with Professor Emeritus John Day, Oceanography and Coastal Sciences, that includes essays by Professors Craig Colten and Jim Wilkins, among others. Professor Erdman’s chapters of the book include a provocative design proposal to raise the base ground level of New Orleans and examine the topic of elevated structures in the coastal environment, from FEMA regulations and coastal construction methodologies to the impact of elevation on urban connectivity. The stature of Professor Day assures that the book will receive significant attention among people addressing coastal issues, and will bring design to prominence within coastal discussions. Given the interdisciplinary team writing for the book, the audience will be a broad cross-section of experts that extends beyond typical architectural writing. The primary benefit of Professor Erdman’s work is a contribution to our expertise on coastal issues.
STEPHANIE HOUSTON GREY, ASSOCIATE PROFESSOR

Communication Studies

Dr. Stephanie Houston Grey has made significant progress on her book, Rooted Resistance: The Rhetorical Struggle for Agrarian Place in Modern American Culture, co-authored with Ross Singer and Jeff Motter. The work is now in the final drafting stage and under contract with University of Arkansas Press. Case studies of key moments of rhetorical rupture and reproduction in the food and agricultural system conceptualize American agrarian rhetoric as a mythic and political assemblage with deep implications for the future of food, the environment, and everyday culture. Topics range from early twentieth century rhetorical origins of the organic food movement to the modern urban community garden movement to the emergence of mediated agrarianism in fast food and the role of technology in the agricultural anthropocene. Dr. Grey completed two chapters during her fall 2016 sabbatical and is in the final stages of revisions.

KENNETH FASCHING-VARNER, ASSOCIATE PROFESSOR

Education

During his sabbatical, Dr. Kenneth Fasching-Varner was able to collaborate with partners at Colegio Concpecion in Chile. These partners included teaching staff, administrators, LSU colleagues, and doctoral students, who all collaborated on publishing a comprehensive empirical piece about LSU Teach in Chile study abroad. This piece has been accepted for publication in Multicultural Perspectives, a top tier diversity journal. The publication reflects 15 years of work that was able to come together during the sabbatical with the opportunity to write, edit, revise, and collaborate with all partners. The publication is unique in that there are 10 contributors, with Dr. Fasching-Varner as the lead author and contributor. It is also unique to take a piece from submission to revision and acceptance so fast, owing to the space of the sabbatical. Additionally, Dr. Fasching-Varner was able to strengthen LSU’s partnership by working with his colleagues to enhance curriculum and teaching approaches.
PATRICK GILMER, PROFESSOR

Mathematics

Dr. Patrick Gilmer visited the “Mathematisches Forschungsinstitut” in Oberwolfach, Germany with Gregor Masbaum of Pierre and Marie Curie Université to develop an integrable TQFT for the PSU[n] theories at level N+k=p, an odd prime. Dr. Gilmer found a new basis for the PSU[3] module in genus one over a cyclotomic field, and has proof that it is indeed a basis for every prime p. Additionally, in Bloomington, Indiana, Dr. Gilmer obtained new results on the Kauffman bracket skein module of a closed surface to cross a circle, and studied constructions of slice knots in order to better understand the question of whether every slice knot is a ribbon knot.

GUOXIANG GU, PROFESSOR

Electrical & Computer Engineering

During his sabbatical, Dr. Guoxiang Gu visited three universities in Hong Kong, which resulted in two new research papers. He also visited several more universities in China, where he reported his research work on consensus control for multi-agent systems, networked control systems, and Kalman consensus filtering. In addition, Dr. Gu was able to advocate for the program and recruit new students to his department.
KYLE E. HARMS, PROFESSOR  

*Biological Sciences*

Dr. Kyle E. Harms submitted two pre-proposal grants to the National Science Foundation, a grant proposal to the Australian Research Council, and four manuscripts to journals during his sabbatical during the 2016-2017 school year. He was able to submit a new manuscript with his collaborator, Dr. Peter Green (La Trobe University, Australia) that is now featured in the Ecology journal. Dr. Harms and his partner capitalized on a unique opportunity to test ideas about forest diversity using the longest-running forest research project on Earth. Over 50 years ago, Dr. Joseph H. Connell (University of California at Santa Barbara) established research plots in the Wet Tropics of Queensland, Australia. In Dr. Harms’ new manuscript, he elaborates on mechanistic hypotheses for a key result he obtained previously: that the processes structuring diversity and composition in the forests operate more consequentially among the early rather than later life-cycle stages of the forest’s trees. As Dr. Harms and his colleagues carried out tests of these novel ideas, they are likely to prove the hypotheses to be broadly generalizable across natural communities of organisms.

BARBARA HEIFFERON, PROFESSOR  

*English*

Dr. Barbara Heifferon spent her sabbatical in spring 2017 working on research covering extensive archives from Carville, Louisiana and New Orleans. Dr. Heifferon had earlier begun to research Carville’s lepersarium, which is well documented in the National Hansen’s Disease Museum also at Carville. She began a book on her findings and conducted further research on leprosy. During the sabbatical Dr. Heifferon was able to compose rough drafts of two chapters and develop a plan for the rest of her book. The first chapter contextualizes the historical written accounts of leprosy in texts both ancient and from the late 1800’s. It then explores the journalistic controversy that erupted in New Orleans during the 1890’s, which led to the expulsion of patients with leprosy from the city, who were then sent to the dilapidated old Indian Camp Plantation south of Baton Rouge in what is now Carville. Lastly, Dr. Heifferon’s second chapter rhetorically analyzes the letters of the Daughters of Charity who served the patients in Carville starting in 1896.
YONGICK JEONG, ASSOCIATE PROFESSOR

Advertising

Pictured is a snapshot of Dr. Yongick Jeong’s experience at the 2016 International Communication Association conference at the beginning of his sabbatical leave. For Dr. Jeong’s sabbatical research in fall 2016, he conducted a large-scale eye-tracking experiment with more than 160 participants. This is significant because typical eye-tracking research has much smaller research samples. Dr. Jeong also completed two manuscripts and submitted them to academic conferences. Besides his proposed sabbatical research, he conducted another significant research project on native advertising in social media. To do this, he used general populations with other advertising faculty members and graduate students in the Manship School of Mass Communication. Dr. Jeong was also able to complete the revisions of several manuscripts currently under review by academic journals. Lastly, he was able to catch up with digital, social media and new technology as well as the recent marketing and advertising trends.

RONGYING JIN, PROFESSOR

Physics & Astronomy

Dr. Rongying Jin conducted research at Nanjing University of Aeronautics and Astronautics (Nanjing, China), where she was able to learn new characterization techniques and took measurements of polarization and dielectric constants of several spinel compounds. Additionally, Dr. Jin traveled to perform measurements at Tsinghua University (Beijing, China), Oak Ridge National Laboratory (Oak Ridge, Tennessee), and at Florida National High Magnetic Field Laboratory (Tallahassee, Florida). These travels allowed Dr. Jin to extend her research activity, and to accomplish results otherwise impossible to obtain.
Dr. Bijaya Karki’s research is of an interdisciplinary nature, involving parallel computation and visualization of geo-materials. He visited the departments of Geology and Geophysics and Computer Science at Yale University from mid-August to mid-December of 2017, where he developed important ideas on challenging computational problems through direct interactions with Yale geoscientists. Dr. Karki initiated a successful collaboration with Yale by submitting one collaborative National Science Foundation proposal and one research paper. While at Yale, he attended weekly departmental seminars and delivered a research seminar. These accomplishments will help Dr. Karki to secure new funding and perform quality research.

Dr. David H. Kirshner’s sabbatical leave in fall 2016 enabled him to complete most of the first section of a book, Genres of Teaching, contracted with Cambridge University Press on relating learning theory to teaching practice. The problem addressed stems from the multi-paradigmatic nature of psychology, which is the idea that researchers in the various branches of psychology have developed conflicting theories of learning. This has led to an unstable base for educational practice and to many of the attendant problems of the profession: overly narrow learning agendas, conflicts about teaching practices, vague guidance for teachers, dialectical complexity, and scale-up problems. Dr. Kirshner was able to conduct library research toward the completion of the book, which is a hybrid text in which he introduces a new approach to solve these problems, combining an analysis of the nature of multi-paradigmatic science intended primarily for theorists with a new framework for relating learning theory to teaching practice intended to be used in the training of teachers.
MARIA KOSMA, ASSOCIATE PROFESSOR  
Kinesiology

Dr. Maria Kosma’s sabbatical leave achievements include completed or in-progress research projects related to community-based exercise and health promotion among diverse populations, including socio-economically disadvantaged African-American young adults, LSU students, and children with disabilities. During this sabbatical leave, her accomplishments include three first-author journal articles [two published and one in press], two funded research grants, and numerous published and submitted research abstracts and presentations. Dr. Kosma travelled to UMass-Amherst to be a guest lecturer in a graduate class about social justice and discuss with numerous colleagues future research collaborations in the area of community-based exercise and health promotion among marginalized populations. She initiated research collaborations in the School of Theater at LSU to understand how artistic, community-based, and embodied experiences in aerial silks can lead to the love of movement. With faculty in the Department of Health and Kinesiology at Northeastern State University in Talequah, OK, Dr. Kosma developed and started implementing a community-based exercise and health promotion program among Korean older adults. Dr. Kosma's research accomplishments during her sabbatical leave are aligned well with the LSU strategic plan 2025 regarding the promotion of health, arts, and culture.

KEN LEVY, PROFESSOR  
Paul M. Hebert Law Center

Professor Ken Levy spent his sabbatical in spring 2017 researching and writing about moral and criminal responsibility. He had ample time to read works about these topics and was able to write two book proposals. In addition, Professor Levy also wrote a chapter for an anthology, “Criminal Responsibility and Moral Responsibility,” which is under review for the forthcoming Sage Encyclopedia of Criminal Psychology. One of his two book proposals, Free Will, Responsibility, and Crime: An Introduction, was accepted for publication and is now under contract with Routledge. The second book proposal, tentatively titled The Insanity Defense: Theory and Practice, which focused on the insanity defense, was also completed. Professor Levy and NYU Press are now searching for a co-author with expertise in forensic psychology to move forward with the second book.
MELISSA LONEGRASS, PROFESSOR

Paul M. Hebert Law Center

Professor Melissa Lonegrass’s sabbatical leave successfully culminated in the completion of a manuscript on the Louisiana law of registry which has been accepted as a volume of the Louisiana Précis Series. The Louisiana Précis Series, published by Carolina Academic Press, is a multi-volume resource for Louisiana lawyers, judges, and law students that provides thoughtful and practical analysis of key areas of Louisiana law. Her contribution to this series, co-authored with Southern University Law Center professor Christopher K. Odinet, is titled Louisiana Law of Registry: A Précis. This book explains and analyzes the law governing the recordation of interests in immovable property—an area of the law that is fundamental to the law of sales, leases, donations, successions, trusts, and security rights. Transactional attorneys and litigators alike will benefit from the clear and straightforward style in which this area of the law is explained.

ROBERT LIPTON, PROFESSOR

Mathematics

Dr. Robert Lipton visited the Institute for Computational Engineering and Sciences on his sabbatical as a John Tinsley Oden Fellow. Together with Ivo Babuška, Dr. Lipton engaged in numerical experiments and analysis of optimal basis functions for Generalized Finite Element Methods (GFEM). Optimal basis functions for multiscale problems were developed earlier by Ivo Babuška and Dr. Lipton under previous visits as a JTO Fellow to the University of Texas. Work carried out during the sabbatical leave has identified inexpensive local bases with nearly optimal approximation properties. The resulting GFEM method is anticipated to compete favorably with multigrid, Multiscale FEM (Caltech, Texas A&M), and Hierarchical Interpolative Factorization (Stanford) on large multiscale problems. Along a second direction, Dr. Lipton worked with Ivo Babuška and Leszek Demkowicz on developing novel non-local methods for numerical modeling and analysis of failure propagation. Originally developed at Sandia, this type of modeling is rapidly gaining traction in the scientific community and has been adopted by several groups including those at Universities of Arizona, Nebraska, MIT, Georgia Tech, and Berkeley. While at UT, Dr. Lipton gave three invited talks at the Aerospace Seminar, the ICES seminar, and the Babuška Seminar.
LEE ANN W. LOCKRIDGE, PROFESSOR

*Paul M. Hebert Law Center*

Professor Lee Ann W. Lockridge engaged in creating a law teaching initiative during her spring 2017 sabbatical. She also worked on a law review article covering the policy rationales surrounding attorney’s fee awards in intellectual property litigation. The goal of her project was for LSU Law faculty to examine and improve their individual and collective approaches to teaching their students. Specifically, Professor Lockridge launched the "LSU Law Teaching and Learning Community," or LSU Law LTC, with Dr. Will Monroe, an interim co-director of the law library. In spring 2017, they created two workshops examining and explaining implemented strategies for enhancing the law classroom learning experience. They then presented the workshops to law faculty. A third LTC workshop in August 2017 focused on in-class formative assessment techniques that built upon the earlier-presented strategies. In addition, Dr. Lockridge began work co-authoring a new edition of an intellectual-property law casebook.

MEGAN MACNAUGHTAN, ASSOCIATE PROFESSOR

*Chemistry*

During the Spring 2018 semester, Dr. Megan Macnaughtan worked at the University of Western Australia in the city of Perth to establish collaborations, expand her knowledge, and collect data. Dr. Macnaughtan worked with Professor Charles Bond to study complexation equilibria of Scc4, a bi-functional Chlamydia trachomatis protein. Through this collaboration and interactions with Dr. Keith Stubbs, Dr. Macnaughtan increased her knowledge in the fields of prion-like domains, synthetic glycobiology, and dynamic light scattering. With the data collected and the resulting collaboration with Professor Bond, Dr. Macnaughtan plans to continue studying Scc4-complex equilibria and submit a grant application to acquire the necessary instrumentation for LSU.
HEATHER MCKILLOP, PROFESSOR  

*Geography and Anthropology*  
During Dr. Heather McKillop’s sabbatical in spring 2018, she advanced her research by submitting a book manuscript, *Maya Salt Works*, on her previous National Science Foundation (NSF)-funded research “Mapping Ancient Maya Wooden Architecture Below the Sea Floor, Belize” and new NSF grant proposal, which was awarded. Her book examines the discovery, mapping, and analyses of wooden buildings preserved at 70 sites below the sea floor in Belize. The new award is a collaborative linked, 3-year $254,873 grant “Labor Organization in a Traditional Complex Society” with a former LSU doctoral grad as co-PI, Dr. E. Cory Sills. They will be investigating the organization of a salt industry, submerged by sea-level rise in Belize by underwater excavations, sediment chemistry, and 3D imaging, along with undergrad and grad students. During her sabbatical, Dr. McKillop also completed writing manuscripts for journals and edited volumes with four published, four in press, four in review, and three submitted to co-authors for their comments.

LAURA MULLEN, PROFESSOR  

*English*  
Professor Laura Mullen resided at Trelex Foundation in Paris, where the vitally necessary solitude and peace, as well as the easy access to nurturing stimulation, aided in the completion of her sabbatical. The notebook she was asked to contribute to an archive at the University of Auckland is seen here, open to the blank page—that terrible and wonderful invitation, that great challenge. The opportunity to confront that space of possibility unites writers and scholars at every level, and Professor Mullen will keep this image in her heart as she returns to teaching and mentoring. We all start from and return to this alone: nothing. This image reminds Professor Mullen to honor that space—and she posts it here as a souvenir, to say that she is grateful to have had this tremendously productive and nourishing sabbatical.
**MORTEZA NARAGHI-POUR, PROFESSOR**  
*Electrical & Computer Engineering*

Dr. Morteza Naraghi-Pour set out to establish collaboration with research groups involved in innovative research in wireless communication. He visited the wireless research group in Monterrey Institute of Technology and Higher Education (ITESM) in Monterrey Mexico. During his stay at ITESM, he collaborated on two projects. One project is in the area of Massive MIMO (multiple-input multiple-output) systems. These systems are one of the driving technologies for the future 5G cellular networks. The second project is in the area of source localization, which is of interest in both civilian and military applications. Although this problem has been extensively investigated in the literature, existing studies rely on unrealistic assumptions. Dr. Naraghi-Pour helped to develop novel techniques for source localization considering practical scenarios for radio propagation. The team has been invited to submit a paper for publication in a book by CRC Press. On the latter project, he has also established collaboration with a research group at National Institute of Standards and Technology.

**JANNA B. OETTING, PROFESSOR**  
*Communication Sciences & Disorders*

Dr. Janna Oetting seeks to improve the methods by which young children with developmental language disorders are identified and provided interventions. If untreated, language disorders put children at risk for illiteracy, school dropout, and unemployment. A barrier to early identification (and contributing to national health disparities in the provision of services to children) is limited information about the clinical markers of a language disorder when children are reared in poverty or speak a non-mainstream dialect of English. Inspired by findings from her recent National Institute of Health grant that examined children’s use of rural Louisiana varieties of African American English and Southern White English, Dr. Oetting spent her sabbatical in spring 2017 visiting language labs at the University of Pennsylvania, Pennsylvania State University, and the University of Illinois; and further testing the across-dialect, diagnostic utility of five grammar structures for kindergarteners. With bilingual doctoral student Maria José Bosanko and bi-dialectal doctoral student Lori Vaughn, Dr. Oetting also began testing the cross-dialect, diagnostic utility of a sentence diversity metric that can be administered to children as young as two and a half years.
JAMES OXLEY, PROFESSOR  
Mathematics

Dr. James Oxley completed the work for four new publications, laid the foundation for other future advances, served as an external examiner for a PhD student at the Technical University of Eindhoven in The Netherlands, served on the organizing committee and participated in the Tutte Centenary Retreat in Australia, and guided two students to the completions of their PhD dissertations. In these roles, Dr. Oxley indicated the abiding commitment of the LSU combinatorics group to world-class research advances.

LU PENG, PROFESSOR  
Electrical & Computer Engineering

Dr. Lu Peng’s sabbatical achievements included securing federal research proposals/grants, high profile publications, and exposure to top research institutions. Specifically, Dr. Peng has built collaborations with researchers from Lawrence Livermore National Library and the University of Southern California; Four National Science Foundation proposals totaling $2,048,028 have been submitted, four papers have been submitted to international journals with one being accepted; two conference papers have been submitted to the top most international conference in his area, another two conference papers are in preparation to be submitted soon; and one of Dr. Peng’s PhD students graduated in Fall 2017.
MICHAEL PASQUIER, ASSOCIATE PROFESSOR

Religious Studies

Dr. Michael Pasquier secured a Whiting Foundation Public Humanities Fellowship for a multidisciplinary project entitled “Coastal Voices” during his spring 2017 sabbatical. In partnership with the LSU Coastal Sustainability Studio, Center for River Studies, and T. Harry Williams Center for Oral History, Dr. Pasquier is developing an audio documentary series, website, and exhibition that explores the intersection of people, land, and water in coastal Louisiana. By putting human voices and faces to Louisiana’s pressing environmental challenges, “Coastal Voices” will ensure that the perspectives of Louisiana residents inform public discussions about the cultural consequences of land loss, sea-level rise, climate change, and large-scale infrastructure projects that are meant to protect and restore the coast. Research for “Coastal Voices” is ongoing, with extensive archival investigation and ethnographic fieldwork that profiles endangered communities near the Gulf of Mexico. “Coastal Voices” was released in March 2018.

ROBERT PECK, PROFESSOR

Music

Dr. Robert Peck was able to work on a research monograph on mathematical applications in music theory, his primary field of specialization, during his fall 2016 sabbatical. He also continued preparing his book, Topics in Advanced Transformational Music Theory, and is in communication with two publishers. The first, Springer-Verlag, has a book series on mathematical music theory and the editors are quite enthusiastic about his project. In addition to this work, Dr. Peck began work on another book project with co-editor Dr. Mariana Montiel, associate professor of mathematics at Georgia State University. It will include twenty contributed chapters by leading researchers in the field and will be published in 2018 by World Scientific Publishing Co. The mathematical theory that is the focus of both books involves applications of abstract algebra, combinatorics, geometry, and graph theory to music theory, analysis, and composition.
EDWARD P. RICHARDS, PROFESSOR

Paul M. Hebert Law Center

Professor Edward P. Richards used his sabbatical in fall 2016 to deepen his knowledge of the scientific literature on the geology and hydrology of the Mississippi Delta. The paleoclimate record is a valuable guide to how the delta performed during past periods of climate driven sea level rise. This helped him better understand how climate change will affect the delta through time. Professor Richards also visited beaches on the United States Atlantic coast to study parallels between coastal restoration schemes in the Louisiana Master Plan for Coastal Restoration and beach restoration, which has been used for decades on the Atlantic coast. Professor Richards visited several areas before and after Hurricane Matthew in order to observe how the storm destroyed the restored dune areas, which has important implications for whether projects such as barrier island restoration will survive winter storms and hurricanes. The research he performed during his sabbatical is being incorporated into several research publications on adaptation to sea level rise on the Louisiana and Atlantic Coasts.

MALCOLM RICHARDSON, PROFESSOR

English

Dr. Malcolm Richardson worked with members of the Institute of Historical Research (IHR) at the University of London to analyze the growth of the Inns of Court and the Inns of Chancery. He then submitted an article on medieval letters for the Brill Companion to Medieval Letters & Letter Writing during spring 2017. Dr. Richardson was also invited to present a seminar at the IHR in May, giving him support from one of the most distinguished scholarly organizations in British Studies. In addition to this, Dr. Richardson and his collaborator created about 20 maps of the inns, eventually yielding data showing an important and undetected pattern in the growth of the legal inns as educational institutions. He presented material at the Renaissance Society of America conference and at the American Association of Geographers conference in April and early May. The presentation at the IHR was accompanied by meetings over two days with IHR members and members of the Historic Towns Trust. In late July Dr. Richardson presented a plenary lecture at the biennial conference of the International Society for the History of Rhetoric in London, where he was finally able to present a coherent outline of the role of the legal inns in the history of rhetoric and public speaking in England. A revised version of this plenary will appear in Rhetorica, the journal of the ISHR.
MEGHAN S. SANDERS, ASSOCIATE PROFESSOR

Mass Communication

Leading into her spring 2017 sabbatical, Dr. Meghan S. Sanders was presented the opportunity to work with a research team consisting of scholars from Florida State University, Pennsylvania State University and Chapman University. The team was led by two of the leading international scholars in media effects, Dr. Arthur A. Raney and Dr. Mary Beth Oliver. The research, funded by the Templeton Foundation, focused on the role of inspirational media in emotional experiences and as a force for positive social change. Together, they conducted a large scale study of LSU students using many of the elements of the Media Effects Lab. Through survey data, dial data of moment-to-moment responses to media content and biometric data [i.e., skin conductance responses, facial expression analysis, etc.], they were able to learn more about the complex relationships between media content, broader character development and personal and social well-being. Some of the findings from this research have been published in the Journal of Communication, a top-tier journal in the discipline, and will be presented at the annual National Communication Association meeting in Dallas, Texas.

CHRISTINA SAUTTER, PROFESSOR

Paul M. Hebert Law Center

Professor Franklin A. Gevurtz of McGeorge School of Law, University of the Pacific and Professor Christina Sautter co-authored MERGERS AND ACQUISITIONS LAW Hornbook, which West Academic Publishing is publishing. The Hornbook is part of West's hardcover Hornbook Series and will be available on Westlaw. The five-chapter, 400-plus page Hornbook is a comprehensive treatment of Mergers & Acquisitions law that they wrote in an informal manner so that it would be accessible to students, practitioners, and judges. In addition to the MERGERS AND ACQUISITIONS LAW Hornbook, she also drafted a law review article, currently entitled “The Honeymoon of Transition”. This article addresses the transition of ownership in M&A deals and specifically focuses on social covenants within merger agreements as well as transition services agreements.
ANDY SHAW, ASSOCIATE PROFESSOR

Art

Professor Andy Shaw was a SÍM resident artist for two months at the Korpúlsstaðir location in Reykjavik, Iceland, where he studied observational photography. During the second month of his Fall 2016 sabbatical, he rented a studio in the arts collective, Íshús Hafnarfjarðar, where he worked alongside 12 ceramic artists. Professor Shaw also addressed the Ceramic Association of Iceland, taught for one week at Myndlistaskólinn í Reykjavik, MIR, [the Visual Art School], gave a demonstration at Íshús for students of MIR, gave a lecture to Íshús artists, exhibited twice with fellow SÍM residents, and gave two public lectures within the SIM residency. His sabbatical research also included 2 weeks of photography in Narsaq, Greenland and two weeks of photography in Newfoundland, Canada, looking carefully at color in the landscape. In each location, he took roughly 3000 photographs. In October, Professor Shaw was a resident artist at the Nova Scotia College of Art and Design for three weeks, working with faculty member Rory MacDonald and his students with the ceramics RAM press and design fabrication tools for the development and production of a new bowl design. In late December, he travelled to Scotland where he continued the photographic studies. During his time in Iceland, Professor Shaw made connections to administrators and faculty at Myndlistaskólinn í Reykjavik, a two-year degree program. MIR frequently sends students to the University of Cumbria in England to complete their BFA degree. Professor Shaw began discussions with MIR about LSU becoming the only North American school to invite MIR students to complete their BFA degree.

PARAMPREET SINGH, ASSOCIATE PROFESSOR

Physics & Astronomy

Though greatly successful in describing dynamics of our Universe and astrophysical objects when gravity is weak, Einstein's theory of General Relativity fails when gravitational attraction becomes extremely strong. For example, this occurs during the birth of our Universe where the gravitational force becomes infinite and a big bang singularity occurs. Dr. Parampreet Singh's sabbatical work involved theoretical research on overcoming limitations of singularities in Einstein's theory. With his collaborators in University of Erlangen-Nuremberg in Germany, Baylor University and Pennsylvania State University in the USA, and University of Delhi and Inter-University Center for Astronomy and Astrophysics in India, Dr. Singh worked on different methods and models which allow us to gain insights on the nature of space-time in the very early Universe and deep interiors of black holes. Five manuscripts were published and communicated based on these works, and five seminars were given during his sabbatical.
JOSEPH SKILLEN, PROFESSOR

Music

Dr. Joseph Skillen was able to write, record, perform, attend conferences, visit with leading pedagogues, and delve deeply into writings that he believes will make him a better artist, teacher and researcher. He attended the 21CM conference, which focused on designing a music curriculum for the needs of the 21st Century musician. Dr. Skillen also visited with Demondrae Thurman (Indiana University), Øystein Baadsvik (international pedagogue and performer from Norway), and Charles Villarrubia (an LSU alumnus now at UT-Austin) about their approaches to various performing techniques and repertoire. Some of the writing he explored dove deeply into how an educator must truly know themselves and their craft before they can be an artist/teacher. Dr. Skillen’s Fall 2016 sabbatical came at a time of great turmoil in Baton Rouge, and he began to recognize that his efforts to help coordinate aid and connect with the needs in the community should continue in his post-sabbatical work.

ANDREW SLUYTER, PROFESSOR

Geography & Anthropology

Dr. Andrew Sluyter spent much of his sabbatical during Fall 2016 at the PAGES International Program office in Bern, Switzerland, interacting with those involved in the LandCover6k working group in Europe. Their goal was to advance the land-use mapping of Middle America for the Holocene, publish the results on the project website, use them to reprogram and empirically calibrate the HYDE anthropogenic land-cover change model employed by a suite of climate models, and use the test run as the basis for an interdisciplinary article. The working group is currently writing the article and will soon submit to the journal. Dr. Sluyter believes such synergistic integration of his research with a large, model-oriented, multidisciplinary project marks a natural progression in his intellectual development. Dr. Sluyter asserts that this allows him to draw on additional modes of analysis, contribute to a globally significant effort, access large-scale multidisciplinary funding opportunities, participate in broad interdisciplinary collaborations including co-authorship of the results, and better help students to see the connections between the subject matter of the courses he teaches with global, socially and scientifically significant efforts, such as climate change modeling.
AARON SMITH, ASSOCIATE PROFESSOR

Biological Sciences

Completion of Dr. Aaron Smith’s sabbatical leave established a new link between the University of Western Australia, the premiere academic research institution in Western Australia, and LSU. This link will provide opportunities for future interactions among students and staff, which will include bidirectional postgraduate student and staff exchanges, as well as collaborative research grants in the area of plant phosphate recycling. For example, Dr. Smith’s expertise in the model plant Arabidopsis has fostered novel bilateral projects that more easily test hypotheses raised from work in experimentally-retractable Proteaceae species. This work has forged and fostered collaboration, and will ultimately lead to the transfer of knowledge from native to crop species, benefitting agriculture in Louisiana, Australia, and beyond. LSU will receive positive recognition by being directly involved in solving these profound agricultural challenges.

WEI-LING SONG, ASSOCIATE PROFESSOR

Finance

Dr. Wei-Ling Song completed her Fall 2016 sabbatical leave at Hong Kong Polytechnic University, where she continued to work with her co-author on the projects funded by the GFR grant sponsored by the Hong Kong Government. Dr. Song was also able to initiate several new projects with other scholars from different universities. One of the projects led to an exciting new working paper entitled "Litigation Environments and Bank Lending: Evidence from the Courts", which combines the areas of law and finance, and was presented by Dr. Song in various conferences. Furthermore, Dr. Song developed a new GFR grant proposal with Professor Liangliang Jiang. Dr. Song will additionally work with Professor Agnes Cheng on topics related to underwriter reputation and financial disclosure. Dr. Song met with Professor Jianfeng Hu, from Singapore Management University, to examine the trading of financial institutions on their corporate clients. The findings from this project have important implications on the Volcker Rule [a section of the Dodd-Frank Act] that aims to ban proprietary trading of banks.
GEORGE G. STANLEY, PROFESSOR

Chemistry

Dr. George G. Stanley visited the Los Alamos National Lab [LANL], the University of Utah, and Colorado State University during his sabbatical in Fall 2016. In October 2016, he spent time at LANL interacting with Dr. Kiplinger’s groups and visiting other scientists. He was able to visit the High Explosives Lab, continuously escorted by Dr. Jackie Veauthier, his host on the visit. Dr. Stanley was allowed hands on testing of some of the LANL high explosives. Next, he worked with Professor Janis Louie’s group at the University of Utah on various work, including their catalysis projects, while engaging in networking at the University of Utah. After this, Dr. Stanley drove to visit the chemistry department at Colorado State University. During his visit, Dr. Stanley stayed with his first PhD graduate student, Dr. Fred Askham. His sabbatical also allowed Dr. Stanley to visit Dow Chemical in Freeport, TX, and Shell Chemical in Houston, TX, at their Westhollow Research Center.

SCOTT SULLIVAN, PROFESSOR

Paul M. Hebert Law Center

During his sabbatical period, Professor Scott Sullivan presented his research at Kings College, London and was invited for a future presentation at the University of Edinburgh. He also made substantial progress toward the completion of a new article tentatively titled, Presumption Against Domestcity. The article argues that, contrary to the conventional wisdom, a set of domestic U.S. laws are silently presumed to apply or are actually exclusively applied outside the territorial borders of the United States. The consequences of this unusual presumption, Professor Sullivan argues, undermine international cooperation and weaken American foreign policy interests.
PADMANABHAN SUNDAR, PROFESSOR

Mathematics

Dr. Padmanabhan Sundar spent time studying the Boltzmann equation, which models the evolution of the density of positions and velocities at time of particles of a dilute gas expanding in vacuum. Velocity of particles change only by elastic collisions. The Boltzmann equation is given where $Q$ is the collision kernel. A closely related equation is the Enskog equation for moderately dense gases. In his work, Dr. Sundar constructed a random process whose probability density solves the Enskog equation. The process is the solution of a stochastic differential equation (SDE) driven by a random measure. The random measure, in turn, depends on the distribution of the solution. His work during his Fall 2016 sabbatical, carried out in Germany, will appear in the Journal of Statistical Physics. Dr. Sundar also submitted articles on semi linear evolution equations with impulses and delays, law of iterated logarithm for SPDEs, and exponential estimates for stochastic Navier-Stokes equations (SNSEs) to various journals. Lastly, Dr. Sundar began a paper on moderate deviations principle for SNSEs that is near completion.

MARTIN TZANOV, ASSOCIATE PROFESSOR

Physics & Astronomy

The DUNE long baseline neutrino oscillation experiment is one of the largest US investments in fundamental sciences. The main goal of DUNE is to conclusively determine if neutrinos are responsible for the matter-antimatter asymmetry in the Universe. ProtoDUNE is a large-scale prototype which will be used to characterize the performance of the DUNE detector. During Dr. Martin Tzanov’s sabbatical, his group and collaborators were able to successfully install and test the cold electronics for the first anode plane assembly (APA1) of ProtoDUNE. Dr. Tzanov’s leave provided international visibility of our work at LSU. As a result, LSU is being considered as one of the main sites for cold electronics testing, a role which will continue for many years once DUNE construction starts. Many undergraduate students will have the opportunity to participate in cold electronics testing and have the chance to do research in the fundamental sciences.
SHAWN WALKER, ASSOCIATE PROFESSOR

Mathematics

Dr. Shawn Walker spent his sabbatical at the University of Minnesota, and at the Institute for Mathematics and its Applications (IMA), working with C. Calderer (in photo) and D. Arnold on mathematical modeling and numerical simulation of liquid crystals (LCs) and related systems. Specifically, he worked on [1] the packing of virus DNA [inside a viral capsid] which utilizes an "LC-like" model and has applications in antibiotics; [2] modeling and simulating LC chromonics; [3] more sophisticated LC modeling via the Landau-deGennes Q-tensor model; [4] surface finite element methods for plate bending and modeling of bio-membranes [e.g. red blood cell]. Dr. Walker participated in the IMA thematic program and other local IMA workshops. Dr. Walker connected with several scientists from many different fields [mathematics, physics, engineering] and learned about new trends in active matter [for modeling and controlling bacteria], LC colloidal effects, LC nematic shells for optical applications, and origami folding of thin elastic structures.

BRIAN WOLSHON, PROFESSOR

Civil & Environmental Engineering

Dr. Brian Wolshon was appointed at the National Disaster Training and Preparedness Center at the University of Hawaii as a Visiting Professor during his fall 2016 sabbatical period, as well as at the Research Centre for Integrated Transportation Innovation in the School of Civil and Environmental Engineering at the University of New South Wales in Sydney, Australia as a Visiting Professorial Fellow. His activities at these institutions included a range of projects that resulted in a number of interesting and varied research, outreach, and teaching outcomes. Dr. Wolshon completed several publications covering disaster relief and preparedness training, two of which are now in print. He also spent his sabbatical giving presentations at conferences across the United States and abroad. He visited Australia and Scotland to deliver disaster training sessions. Lastly, Dr. Wolshon had the opportunity to receive grants for two of his proposals, “Cooperative Mobility for Competitive Megaregions [CM2]” and “Maritime & Multimodal Transportation Research and Education Center [MarTREC]".
YEJUN WU, ASSOCIATE PROFESSOR

Library & Information Sciences

Dr. Yejun Wu created and implemented three research projects in Fall 2016 at the Division of Information and Technology Studies (DITS) within the Faculty of Education at the University of Hong Kong (HKU). Dr. Sam Chu at DITS of HKU administers a Reading Battle project which studies primary school students’ reading behavior and competency. This Reading Battle project provided the resources necessary to orchestrate the research conducted by Dr. Wu. From his findings, he was able to draft a research paper studying the factors affecting the reading behavior and competency of primary school students in Hong Kong. In addition to this, Dr. Wu’s project studying the role of knowledge organization in children’s reading comprehension and inference is close to the end of data collection. Once complete, he will draft a paper based on the project. Dr. Wu also had the opportunity to compare the English and Chinese children books based on genre, theme, reading difficulty levels, and knowledge organization complexity level. This project is nearly complete. Lastly, Dr. Wu is grateful for the chance to have scholarly exchange with the DITS faculty on knowledge visualization.

JACK A. YEAGER, PROFESSOR

French Studies

Dr. Jack Yeager spent his Spring 2017 sabbatical in Hanoi, Viet Nam, and completed a variety of projects. He worked at the National Library on reception of Vietnamese Francophone literature in Viet Nam where he established a bibliography of periodicals in French and Vietnamese in the library collections. Dr. Yeager was also appointed “Chercheur invité” at the Institut Francophone International by its director, Dr. Ngô Tư Lưp. In addition, Dr. Lưp invited Dr. Yeager to write an article for the Institut. He also completed a draft of his article, “Invention, appropriation et adoption d’identités dans des romans francophones de Kim Doan, Kim Thúy et Minh Tran Huy,” in Hanoi. Dr. Yeager had the opportunity to present lectures in two classes at Australia National University-Canberra on Rithy Panh’s film, “Un barrage contre le Pacifique”, as well as a seminar for faculty on Linda Lê and the question of plagiarism. He met with Dr. Leslie Barnes to discuss the directions of future collaborations with his new project on con gáï novels by French colonial authors. Dr. Yeager also met with Dr. Richard Serrano, Chair of the Department of French at Rutgers, to organize a colloquium in New Brunswick with Dr. Nora Taylor (Art Institute of Chicago) and Dr. Leslie Barnes (ANU) focusing on Viet Nam. The colloquium is scheduled for April 2018.
JIANDI ZHANG, PROFESSOR

Physics & Astronomy

Dr. Jiandi Zhang participated in several experimental studies on emergent phenomena at the interface and ultrathin films of correlated electron materials, especially the nature of metal-to-insulator transition (MIT) and interface superconductivity. He accomplished this by utilizing the unique capabilities of atomically controlled material growth integrated with a comprehensive set of in-situ structural, compositional and electronic property characterization at Institute of Physics (IOP), Chinese Academy of Sciences. Dr. Zhang was also able to gain experience in oxide molecular beam epitaxy at IOP [in complementary with the laser-MBE at LSU] and advanced low-temperature scanning tunneling microscopy, as well as the unique integrated electron-energy loss spectroscopy with ultra-high resolution angle-resolved photoelectron spectroscopy. Dr. Zhang believes his sabbatical leave during the 2016-2017 school year will enhance LSU’s research strengths by situating the university at the forefront of fundamental studies and application of correlated electron materials. So far, Dr. Zhang has published eight journal articles and five papers directly related to the collaboration with Professor Jiandong Guo’s group at the Institute of Physics, Chinese Academy of Sciences, Beijing, China.