

SUMMARY
New Appointments to Endowed Chairs, Professorships, or Fellowships (15)

August 26, 2019

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Sophia Economou	William E. Hassinger, Jr. Senior Faculty Fellowship in Physics
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ENDOWED PROFESSORSHIP
Charles T. Holland Professorship, Department of Mining and Minerals Engineering

The Charles T. Holland Professorship in Mining and Minerals Engineering was established with generous gifts from alumni of the Department, in honor of Dr. Charles T. Holland. The creation of this professorship recognized Dr. Holland's commitment, dedication and a life-long mentoring of the mining and minerals engineering students and graduates. Dr. Holland served as head of the department for many years and he is considered a pioneer in the field of mine design and health and safety.

Dean Julia Ross has nominated Dr. Kray Luxbacher to the Charles T. Holland Professorship, based on the recommendations of the Department of Mining and Minerals Engineering Honorifics Committee and the department head. Dr. Luxbacher's commitment to education, research, and mentoring student's professional and personal success makes her a natural successor of the Holland legacy at Virginia Tech.

During her 11 years at Virginia Tech, Dr. Luxbacher has published over 60 papers, advised over 20 graduate students and been involved in research totaling over \$6M. She has gained an international reputation as one of the leading experts in the area of underground mine ventilation with specialized expertise in atmospheric monitoring, ventilation system characterization, mine fire simulation and prevention, and mine risk analysis. The impacts of Dr. Luxbacher research are far-reaching and significant, and have been well recognized worldwide by the scientific community. She has undertaken research projects involving transfer of best practice in mining risk management between the US and Australia, and, as an example, of her national reputation has been appointed to a Centers for Disease Control-National Institute for Occupational Safety and Health (CDC-NIOSH) federal advisory board for mine safety and health research.

Dr. Luxbacher is also highly regarded by the faculty and student body for her ongoing contributions to teaching and advising. She has led efforts in her department to transition the mining engineering curriculum into a leadership-based program. She has also served as the lead faculty in the development of the first department strategic plan in 2014, with advice and recommendations from alumni, the industry and the departmental advisory board. Dr. Luxbacher is committed to diversity and inclusion, serving as the founding faculty member of the Watford Society, promoting diversity and inclusion in the mining engineering student body.

Her ongoing dedication to departmental administration in combination with her prominent research program, strong publication record, and highly regarded contributions to teaching, advising and service, all confirm that Dr. Luxbacher is well deserving of the recognition, honor and compensation associated with the receipt of this endowed professorship.

RECOMMENDATION:

That Dr. Kray Luxbacher be appointed to the Charles T. Holland Professorship in Mining and Minerals Engineering for a renewable period of 5 years, effective August 10, 2019, with a salary supplement and operating budget as provided by the and, if available, with funds from the eminent scholars match program.

August 26, 2019

ENDOWED FACULTY FELLOWSHIP
Luther and Alice Hamlett Junior Faculty Fellowship

The Luther and Alice Hamlett Junior Faculty Fellowships were established in the College of Science through a generous bequest from the estate of the late Dr. Luther J. Hamlett. Dr. Hamlett, who earned his bachelor's degree in biology as a 1945 graduate of Virginia Tech, established these fellowships to provide support for outstanding faculty members who hold the rank of assistant or associate professor, and whose work supports the missions of the college's Academy of Integrated Science. A recipient shall hold the fellowship for a period of three years with one possible renewal.

Dr. Sally C. Morton, dean of the College of Science, has nominated Dr. Frank Aylward, assistant professor of biological sciences, to hold one of these endowed fellowships. The nomination is supported by the Hamlett Junior Faculty Fellowship selection committee, comprised of faculty members from the College of Science affiliated with the Academy of Integrated Science (AIS) and the AIS Director, Dr. Michel Pleimling.

Dr. Aylward joined the Department of Biological Sciences in 2017 as an assistant professor. He previously spent four years as a postdoctoral researcher at the Massachusetts Institute of Technology and at the University of Hawai'i. He earned his Ph.D. in microbiology from the University of Wisconsin-Madison in 2013 and B.S. degrees in biochemistry and molecular biophysics and in Molecular and Cellular Biology from the University of Arizona in 2008.

Dr. Aylward is a core member of the Academy of Integrated Science's Systems Biology degree program. He teaches Introduction to Systems Biology and Systems Biology of Genes and Proteins, all of which are central to the systems biology program. One emphasis of his pedagogy is to integrate teaching and research and introduce students to cutting-edge research through the use of modern computational tools.

Dr. Aylward's scholarship is very strong, with 30 publications (in leading journals like Nature Microbiology and the Proceedings of the National Academy of Sciences) that have garnered 1,400 citations. Dr. Aylward is the recent recipient of two prestigious early career awards, the Alfred P. Sloan Research Fellowship in Ocean Sciences and the Simons Foundation Early Career Award in Marine Microbial Ecology and Evolution. In addition, he is the PI of an Infrastructure Innovation for Biological Research grant from the National Science Foundation.

RECOMMENDATION:

That Frank Aylward, Ph.D. be appointed a Luther and Alice Hamlett Junior Faculty Fellow for a three-year term, effective August 10, 2019, with operating support as provided by the endowment and, if available, with funds from the eminent scholars match program.

August 26, 2019

FACULTY FELLOWSHIP
College of Science Faculty Fellowship

The College of Science Faculty Fellowships were established in 2019 through support from alumni and friends of the College to enhance the national and international prominence of the Virginia Tech College of Science. These fellowships are intended to recognize faculty dedicated to extraordinary research and teaching; to recruit scholars with exceptional records of achievement; and/or retain high-performing faculty members who make significant contributions to the university's research efforts and beyond. A recipient shall hold the fellowship for a period of three years with possible renewal.

Dr. Sally C. Morton, dean of the College of Science, has nominated Dr. Martha Ann Bell, Professor of Psychology, to hold one of these fellowships, concurring with the recommendation of the College of Science Honorifics Committee.

Dr. Bell joined the Department of Psychology in 1996 as an assistant professor and ascended through the academic ranks to professor in 2010. In addition to her current position in the Department of Psychology, she also holds an appointment as a professor of health sciences, professor of basic science education, and is an affiliated professor of human development & family science. Prior to joining the Virginia Tech faculty, she was a visiting assistant professor of psychology at the University of South Carolina and a research associate in the Child Development Laboratory of the University of Maryland.

Dr. Bell's research is centered on developmental cognitive neuroscience where she studies frontal lobe functioning. She focuses on typically developing infants and children and examines individual differences in brain and behavior. She studies internal factors specific to the child (e.g., brain electrical activity, brain network activity, emotion reactivity, emotion regulation) and external factors specific to the child (e.g., parents cognitive processes, parent behaviors, parenting attitudes) to examine the complex ways these intrinsic and extrinsic factors are linked to children's developmental trajectories. Her research informs the basic science research literature in developmental psychology, as well as the fields of clinical psychology and intervention science.

Dr. Bell's scholarship record is very strong, where she has authored or co-authored more than 110 peer-reviewed papers, 29 book chapters, and she has edited one book and one book series, with more in press. She has given numerous invited lectures and symposia. Dr. Bell's research expertise has been recognized with substantial funding. Since coming to Virginia Tech, she has been PI, co-PI, or co-I on 10 external grants worth more than \$6M from the National Institutes of Health.

RECOMMENDATION:

That Martha Ann Bell, Ph.D. be appointed a College of Science Faculty Fellow for a three-year term, effective August 10, 2019, with operating support as provided by the endowment and, if available, with funds from the eminent scholars match program.

August 26, 2019

FACULTY FELLOWSHIP
Roger Moore and Mojdeh Khatam-Moore Faculty Fellowship

The Roger Moore and Mojdeh Khatam-Moore Dean's Faculty Fellowship was established in 2019 by a generous donation from its namesakes to enhance the national and international prominence of the Virginia Tech College of Science. Mr. Roger H. Moore '64, who earned his bachelor's degree in general science at Virginia Tech, established this fellowship with his wife to recognize faculty dedicated to extraordinary research and teaching; to recruit scholars with exceptional records of achievement; and/or retain high-performing faculty members who make significant contributions to the university's research efforts and beyond. A recipient shall hold the fellowship for a period of three years with possible renewal.

Dr. Sally C. Morton, dean of the College of Science, has nominated Dr. Cayelan Carey, associate professor of biological sciences, to be the recipient of this fellowship, concurring with the recommendation of the College of Science Honorifics Committee.

Dr. Carey joined the Department of Biological Sciences in 2013 as an assistant professor and was promoted to associate professor in 2019. Since coming to Virginia Tech, she has established an internationally recognized, externally-funded research program. She has served as a Fulbright fellow at the Institute of Limnology of Uppsala University, Sweden, and a one-year post-doc at the Center of Limnology, University of Wisconsin-Madison. She earned her Ph.D. in ecology and Evolutionary Biology from Cornell University in 2012.

Dr. Carey's research is focused on monitoring and forecasting water quality of a host of lakes and reservoirs. Her work is at the interface of freshwater ecology and data science, using environmental sensors to collect real-time data. Her scholarship record is very strong, with 74 peer reviewed publications, a citation count of 1,880, and an h-index of 23.

Dr. Carey's research expertise has been recognized with substantial funding. Her lab has been supported by six National Science Foundation grants totaling \$5.4M. In recognition of her contributions to research, science training, and broader societal water issues, she received the 2018 Yentsch-Schindler Award from the Association of the Sciences of Limnology and Oceanography, the premier early career award in her discipline. She has also received the Department of Biological Science's Outstanding Faculty Research Award in both 2015 and 2018, the department's Outstanding Graduate Advising Award in 2017 and the department's Outstanding Teaching Award in 2018.

RECOMMENDATION:

That Cayelan Carey, Ph.D. be appointed a Roger Moore and Mojdeh Khatam-Moore Dean's Faculty Fellow for a three-year term, effective August 10, 2019, with operating support as provided by the endowment and, if available, with funds from the eminent scholars match program.

August 26, 2019

FACULTY FELLOWSHIP
College of Science Faculty Fellowship

The College of Science Faculty Fellowships were established in 2019 through support from alumni and friends of the College to enhance the national and international prominence of the Virginia Tech College of Science. These Fellowships are intended to recognize faculty dedicated to extraordinary research and teaching; to recruit scholars with exceptional records of achievement; and/or retain high-performing faculty members who make significant contributions to the university's research efforts and beyond. A recipient shall hold the fellowship for a period of three years with possible renewal.

Dr. Sally C. Morton, dean of the College of Science, has nominated Dr. Xinwei Deng, associate professor of statistics, to hold one of these fellowships, concurring with the recommendation of the College of Science Honorifics Committee.

Dr. Deng joined the Department of Statistics in 2011 as an assistant professor. He was a Visiting Assistant Professor at University of Wisconsin-Madison, Madison from 2009-2011 after earning his Ph.D. in Statistics from the Georgia Institute of Technology in 2009. Dr. Deng's scholarship record is very strong, with 38 publications in peer reviewed journals, six refereed conference proceedings, and four book chapters and 60 invited or keynote presentations at professional conferences.

Dr. Deng is a data science researcher working at the interface between the design of experiments and machine learning for large scale analysis, learning, and decision making processes. His research is focused on big data, often streaming in real-time, that is noisy, where he seeks to design decision analytics that are efficient, accurate, fair, and robust. Working at the interface between machine learning and experimental design, his pioneering work integrates data extraction and data modeling under a unified framework to support intelligent data and decision analytics. The impact of the work is substantial, and Deng's scholarship noteworthy.

Dr. Deng's research expertise has been recognized with substantial funding. Since coming to Virginia Tech, he has been PI or co-PI on 14 grants with a personal share of more than \$400,000 from a variety of organizations including the National Science Foundation (NSF), the Commonwealth Center for Advanced Manufacturing, and the Proctor & Gamble Company.

RECOMMENDATION:

That Xinwei Deng, Ph.D. be appointed a College of Science Faculty Fellow for a three-year term, effective August 10, 2019, with operating support as provided by the endowment and, if available, with funds from the eminent scholars match program.

August 26, 2019

ENDOWED FACULTY FELLOWSHIP
William E. Hassinger, Jr. Senior Faculty Fellowship in Physics

The William E. Hassinger, Jr. Senior Faculty Fellowship in Physics was established in 2007 by a generous gift from its namesake to enhance the national and international prominence of Virginia Tech's Department of Physics. Mr. Hassinger, who earned his bachelor's degree in physics as a 1950 graduate of Virginia Tech, established this fellowship to support the teaching and research of a tenured faculty member of the physics department. A recipient shall hold the fellowship for a period of three years with possible renewal.

Dr. Sally C. Morton, dean of the College of Science, has nominated Dr. Sophia Economou, associate professor of physics, to be the recipient of this fellowship, concurring with the recommendation of the College of Science Honorifics Committee.

Dr. Economou joined the Department of Physics in 2015 as an associate professor. She previously spent nine years at the Naval Research Laboratory, with three years as a NRC postdoctoral research associate, then as a staff research physicist for six years. She earned her Ph.D. in Physics from University of California, San Diego in 2006.

Dr. Economou's research is focused on theoretical quantum information science, which is of enormous current interest worldwide due to the technological revolution it can enable in communications and computing, including the solution of problems that are intractable with classical computers. She leads an active research group of six graduate students and five postdoctoral fellows. She has created two new courses in quantum information technologies and quantum optics to bring the excitement of this field to our upper level undergraduates and beginning graduate students.

Dr. Economou's scholarship record is very strong, with 52 publications in peer reviewed journals and 25 invited or keynote presentations at professional conferences. Her publications have garnered over 1,800 citations in her career to date.

Dr. Economou's research expertise has been recognized with substantial funding. Since coming to Virginia Tech, she has been PI or co-PI on 12 grants with a personal share of \$2.8M from a variety of agencies including the National Science Foundation (NSF), Department of Energy, Army Research Office, and the Defense Advanced Projects Research Agency. She is the lead PI on five of these grants, including two very competitive solicited calls from the NSF: a \$2M 'Emerging Frontiers in Research and Innovation' (EFRI) NSF grant on quantum communications and a \$1M 'Research Advanced by Interdisciplinary Science and Engineering' (RAISE) NSF grant on quantum simulation of chemical systems.

RECOMMENDATION:

That Sophia Economou, Ph.D. be appointed the William E. Hassinger, Jr. Senior Faculty Fellow in Physics for a three-year term, effective August 10, 2019, with operating support as provided by the endowment and, if available, with funds from the eminent scholars match program.

August 26, 2019

ENDOWED PROFESSORSHIP
Luther and Alice Hamlett Professorship

The Luther and Alice Hamlett Professorship was established in the College of Science through a generous bequest from the estate of the late Dr. Luther J. Hamlett. Dr. Hamlett earned his bachelor's degree in biology as a 1945 graduate of Virginia Tech. The professorship shall provide support for an outstanding faculty member who holds the rank of associate or full professor, and whose work supports the missions of the college's Academy of Integrated Science. The recipient shall hold the professorship for a period of four years with possible renewal.

Dr. Sally C. Morton, dean of the College of Science, has nominated Dr. Mark Embree, professor of mathematics, to hold this endowed professorship. The nomination is supported by Dr. Michel Pleimling, Director of the Academy of Integrated Science in the College of Science, and Dr. Eric de Sturler, head of the Department of Mathematics.

A Virginia Tech alumnus (B.S. in Computer Science and Mathematics, 1996) and Virginia Tech's second Rhodes Scholar, Dr. Embree obtained his doctorate in Numerical Analysis from Oxford University in 2000. After a post-doctoral position at Oxford, he joined the faculty of Computational and Applied Mathematics at Rice University, where he served from 2002 to 2013 as an assistant, associate, and then full professor. He was the founding director and Doerr Professor of the Rice Center for Engineering Leadership.

Dr. Embree returned to Virginia Tech in January 2014, joining the Department of Mathematics and the Computational Modeling and Data Analytics (CMDA) Division in the Academy of Integrated Science. He has led the CMDA Division since summer of 2015, seeing the major grow from roughly 100 majors to a total of 500 anticipated in fall of 2019. He has helped develop several courses in the CMDA curriculum, including a senior capstone project program in which teams for three to four students tackle open-ended modeling and analytics challenges from industrial and academic partners. He taught in the Presidential Global Studies program in Spring 2019, and contributes to the new Calhoun Discovery Program in the Honors College.

Dr. Embree's research focuses on large-scale matrix computations, with broad applications in science and engineering. His work has been supported by early career awards from the Department of Energy and the National Science Foundation. He specializes in the study of eigenvalue problems for non-self-adjoint operators and associated dynamical systems, described in the book "Spectra and Pseudospectra: The Behavior of Nonnormal Matrices and Operators" he co-authored with Lloyd N. Trefethen, published by Princeton University Press. He has delivered invited talks at the Society for Industrial and Applied Mathematics (SIAM) Annual Meeting (2016) and the SIAM Applied Linear Algebra conference (2006, 2018).

RECOMMENDATION:

That Mark Embree, Ph.D., be appointed the Luther and Alice Hamlett Professor for a four-year term, effective July 1, 2019, with operating support as provided by the endowment and, if available, with funds from the eminent scholars match program.

August 26, 2019

ENDOWED FACULTY CHAIR
Virginia Tech Class of 1950 Mathematics Professorship

The Virginia Tech Class of 1950 Mathematics Professorship was established through a generous donation from the Virginia Tech Class of 1950. The class established this professorship for purpose of attracting and retaining eminent scholars to the Department of Mathematics at Virginia Tech. The recipient shall hold the professorship for a period of five years with possible renewal.

Dr. Sally C. Morton, dean of the College of Science, has nominated Dr. Serkan Gugercin, currently A.V. Morris Professor of Mathematics, to hold this endowed professorship. The nomination is supported by the Class of 1950 Mathematics Professorship selection committee, comprised of faculty members from the Department of Mathematics, and Dr. Eric de Sturler, head of the Department of Mathematics.

Dr. Gugercin joined the Department of Mathematics in 2003 as an assistant professor, was promoted to associate professor in 2008 and to professor in 2013, and was appointed to the A.V. Morris Professorship in 2016. He earned his Ph.D. in Electrical Engineering from Rice University in 2003.

Dr. Gugercin is a deputy director and the curriculum committee chair of the Academy of Integrated Science's CMDA degree program. In the Department of Mathematics he serves as the undergraduate research coordinator and the chair of the applied and computational mathematics degree option. An esteemed teacher, he has done innovative curriculum development at both the undergraduate and graduate levels, and he has supervised three postdoctoral scholars, seven Ph.D. students, nine M.S. students, and 13 undergraduate research students. In addition, he serves as an associate editor for two highly regarded journals.

Dr. Gugercin's scholarship record is very strong, with 38 journal publications, five book chapters, and 93 invited presentations, including 11 keynote or endowed lectures. His publications have garnered over 4,500 citations, including over 2,900 since 2014.

Dr. Gugercin's international leadership in reduced order modeling research has been recognized by an NSF CAREER Award, a Humboldt Research Fellowship for Experienced Researchers, and a J.T. Oden Faculty Fellowship from the University of Texas. His research enables real-time application of computational models by accelerating the computation of verifiably highly accurate models. As PI or co-PI, he has received over \$5.5M in research support from the National Science Foundation, NSF, the Air Force Office of Scientific Research, the Department of Energy, and the National Institute for Occupational Safety and Health, for projects ranging from theoretical analysis to applications in areas such as building energy efficiency, mine safety, power networks, and smart infrastructure for senior independent living.

RECOMMENDATION:

That Serkan Gugercin, Ph.D. be appointed the Virginia Tech Class of 1950 Mathematics Professor for a five-year term, effective August 10, 2019, with salary supplement and operating support as provided by the endowment and, if available, with funds from the eminent scholars match program.

August 26, 2019

FACULTY FELLOWSHIP
Roger Moore and Mojdeh Khatam-Moore Faculty Fellowship

The Roger Moore and Mojdeh Khatam-Moore Dean's Faculty Fellowship was established in 2019 by a generous donation from its namesakes to enhance the national and international prominence of the Virginia Tech College of Science. Mr. Roger H. Moore '64, who earned his bachelor's degree in general science at Virginia Tech, established this fellowship with his wife to recognize faculty dedicated to extraordinary research and teaching; to recruit scholars with exceptional records of achievement; and/or retain high-performing faculty members who make significant contributions to the university's research efforts and beyond. A recipient shall hold the fellowship for a period of three years with possible renewal.

Dr. Sally C. Morton, dean of the College of Science, has nominated Dr. Patrick Huber, professor in the Department of Physics, to be the recipient of this fellowship, concurring with the recommendation of the College of Science Honorifics Committee.

Dr. Huber joined the Department of Physics in 2008 as an assistant professor and ascended through the academic ranks to professor in 2015. He served as chair of the department in 2015-16, became director of the Integrated Security Education and Research Center (ISERC) in 2017 and director of the Center for Neutrino Physics at Virginia Tech in 2018. He has 133 publications and has built a strong and impactful research program that has resulted in an h-index of 52 and a body of work with more than 12,000 citations.

Dr. Huber's research is focused on neutrino physics. Since joining Virginia Tech 10 years ago, he has helped to build a world-leading program in neutrino physics both in basic science and applications to global and national security. In 2010 he co-founded the Center for Neutrino Physics at Virginia Tech and the first workshop organized by the center, Sterile Neutrinos at the Crossroads in 2011, resulted in a Light Sterile Neutrino White paper. This white paper has more than 600 citations and was influential for the neutrino community eventually paving the way for the Intermediate Neutrino Program which led to the PROSPECT experiment. The GLOBES software package that he was a lead developer of is the standard for computing the physics sensitivity of many large neutrino experiments.

Dr. Huber's research expertise has been recognized with substantial funding. Since coming to Virginia Tech, he has obtained more than \$2M in direct federal funding. He is the recipient of multiple awards, including the Fermilab Distinguished Scholar in 2016, the Breakthrough Prize in Fundamental Physics in 2016, and Early Career Research Award of the US Department of Energy Office of High Energy Physics in 2010, and the Otto-Hahn-Medal of the Max-Planck-Gesellschaft in 2003.

RECOMMENDATION:

That Patrick Huber, Ph.D. be appointed a Roger Moore and Mojdeh Khatam-Moore Dean's Faculty Fellow for a three-year term, effective August 10, 2019, with operating support as provided by the endowment and, if available, with funds from the eminent scholars match program.

August 26, 2019

ENDOWED FACULTY FELLOWSHIP
L. C. Hassinger Faculty Fellowship

The L.C. Hassinger Senior Faculty Fellowship in Nanoscience was established to support outstanding scholarship in the field of Nanoscience. The donor, William E. Hassinger, Jr., an alumnus of the College of Science, earned a bachelor's degree in physics from Virginia Tech in 1950. This endowment was created and named in honor of his grandfather, L.C. Hassinger. This fund was established to provide support for an outstanding faculty member who holds the rank of associate or full professor, and whose work in one of the fields of science at the nanoscale supports the missions of the college's Academy of Integrated Science. The recipient shall hold the Fellowship for a period of three years with possible renewal.

Dr. Sally C. Morton, Dean of the College of Science, has nominated Dr. Giti Khodaparast, professor of Physics, to hold this endowed fellowship. The nomination is supported by the Hassinger Faculty Fellowship selection committee, comprised of faculty members from the College of Science affiliated with the Academy of Integrated Science (AIS) with expertise in Nanoscience and the AIS Director, Dr. Michel Pleimling.

Dr. Khodaparast earned her doctorate in Physics from the University of Oklahoma in 2001. After a post-doctoral position at Rice University, she joined the faculty at Virginia Tech in 2004 as an assistant professor. She was promoted in 2009 to associate professor and in 2019 to full professor.

Dr. Khodaparast is a core member of the Academy of Integrated Science's Nanoscience degree program and served on the committee that developed this innovative new degree program. She has developed and taught for many years the Quantum Physics of Nanostructures course, a course central to the program. She has also taught courses in Nanotechnology, Modern Physics, Electricity and Magnetism, and Classical Mechanics. She has been strongly committed to mentoring undergraduate and graduate research, having guided 27 undergraduate students (majoring either in physics or in nanoscience) and eight graduate students on research projects.

Dr. Khodaparast is recipient of the 2018 International Association of Advanced Materials Certificate for "notable and outstanding contribution to the field of Advanced Energy Materials and Technology" and has been named in March 2016 "Woman Physicist of the Month" by the American Physical Society's Committee on the Status of Women in Physics. She has been a member of the National Research Council since 2014. She has organized meetings and conferences on "narrow gap semiconductors" as well as in 2017 the American Physical Society Conference for Undergraduate Women in Physics.

Dr. Khodaparast's research expertise has been recognized with funding from the highest levels. Her work has been supported by early career awards from the National Science Foundation and from the Air Force Office of Scientific Research. She is the Principal Investigator of a series of AFOSR grants that have established a long-lasting and strong collaboration on "Nonlinear and Terahertz Studies of Electro-Optic and Magneto-Electric

Materials” between Virginia Tech, the University of Florida, Texas A&M, and the University of Colorado Boulder.

RECOMMENDATION:

That Giti Khodaparast, Ph.D., be appointed the L. C. Hassinger Faculty Fellow for a three-year term, effective August 10, 2019, with operating support as provided by the endowment and, if available, with funds from the eminent scholars match program.

August 26, 2019

ENDOWED FACULTY FELLOWSHIP
The Blackwood Junior Faculty Fellowship

The Blackwood Junior Faculty Fellowship was established in the College of Science through a generous donation from Mary Nolan Blackwood '73 and Willis P. Blackwood '72. Mary and Willis Blackwood established this fellowship in 2006 to provide support for a leading faculty member who holds the rank of assistant or associate professor, to forward the advancement of the life sciences with a complementary focus on the development of business and/or entrepreneurial opportunities. A recipient shall hold the fellowship for a period of three years with possible renewal.

Dr. Sally C. Morton, dean of the College of Science, has nominated Dr. Guoliang (Greg) Liu, assistant professor of chemistry as the Blackwood Junior Faculty Fellow of Life Sciences, concurring with the recommendation of the College of Science Honorifics Committee.

Dr. Liu joined the Department of Chemistry in 2014 as an assistant professor. He previously spent three years as a postdoctoral fellow in chemistry at Northwestern University. He earned his Ph.D. in Chemical Engineering from the University of Wisconsin in 2011.

Dr. Liu is a core member of the Academy of Integrated Science's Nanoscience degree program. He teaches Nanoscale Synthesis, Fabrication, and Characterization, which is central to the nanoscience program as well as General Chemistry, Polymer Nanomaterials, and Nanomaterials for Energy & Environmental Sciences within the Department of Chemistry. Notably, he has been strongly committed to mentoring graduate and undergraduate research, having already guided nine graduate and 22 undergraduate students on research projects in his five years at Virginia Tech.

Dr. Liu's scholarship record is very strong, with at least 50 publications in nanoscience, chemistry and engineering journals, 16 patents, and 49 invited or keynote presentations at professional conferences and universities. His publications have garnered more than 2,100 citations.

Dr. Liu's research expertise has been recognized with funding from the highest levels. He has been awarded a prestigious National Science Foundation (NSF) CAREER Award for Directed Self-Assembly of 2D Plasmonic Nanoparticles in Block Copolymer Nanofibers to Form Hierarchical Nanostructures and a 2017 Air Force Young Investigator Program Award. He is the Principal or co- Investigator on more than \$3.5M in extramural funding.

RECOMMENDATION:

That Guoliang (Greg) Liu, Ph.D. be appointed the Blackwood Junior Faculty Fellow for a three-year term, effective August 10, 2019, with operating support as provided by the endowment and the eminent scholar match, if available.

August 26, 2019

ENDOWED FACULTY FELLOWSHIP
Luther and Alice Hamlett Junior Faculty Fellowship

The Luther and Alice Hamlett Junior Faculty Fellowships were established in the College of Science through a generous bequest from the estate of the late Dr. Luther J. Hamlett. Dr. Hamlett, who earned his bachelor's degree in biology as a 1945 graduate of Virginia Tech, established these fellowships to provide support for outstanding faculty members who hold the rank of assistant or associate professor, and whose work supports the missions of the college's Academy of Integrated Science. A recipient shall hold the fellowship for a period of three years with one possible renewal.

Dr. Sally C. Morton, dean of the College of Science, has nominated Dr. Eileen Martin, assistant professor of Mathematics, to hold one of these endowed fellowships. The nomination is supported by the Hamlett Junior Faculty Fellowship selection committee, comprised of faculty members from the College of Science affiliated with the Academy of Integrated Science (AIS) and the AIS Director, Dr. Michel Pleimling.

Dr. Martin joined the Department of Mathematics in 2018 as an assistant professor. She earned her Ph.D. in Computational and Mathematical Engineering from Stanford University in 2018 and her B.S. degrees in Mathematics and Computational Physics from the University of Texas at Austin in 2012. She has an affiliation with the Geophysics Department at the Lawrence Berkeley National Laboratory.

Dr. Martin is a core member of the Academy of Integrated Science's Computational Modeling and Data Analytics (CMDA) degree program. She teaches Integrated Quantitative Science and CS Foundations for CMDA, two courses that are central to the CMDA program. She has been strongly committed to mentoring undergraduate students, both as research mentor guiding undergraduate research and as faculty mentor in the American Women in Mathematics program at VT. She has served as the faculty organizer of the first Women in Data Science event at Virginia Tech.

Dr. Martin's research spans data-intensive high performance computing, imaging science, inverse problems, signal processing, and data science for physical sciences. Her recent focus has been on seismology with distributed acoustic sensing. She is the associate editor of the journal *Computers & Geosciences* and has organized workshops and sessions at leading national and international conferences. Dr. Martin is co-PI on the recently awarded \$1.9M Department of Energy grant "Fully Distributed Acoustic and Magnetic Field Monitoring via a Single Fiber Line for Optimized Production" that proposes to develop a new sensing system for joint seismic and electromagnetic data. She has presented her research in invited and keynote presentations at professional conferences.

RECOMMENDATION:

That Eileen Martin, Ph.D., be appointed a Luther and Alice Hamlett Junior Faculty Fellow for a three-year term, effective August 10, 2019, with operating support as provided by the endowment and, if available, with funds from the eminent scholars match program.

August 26, 2019

FACULTY FELLOWSHIP
Patricia Caldwell Faculty Fellowship

The Patricia Caldwell Faculty Fellowship was established in 2019 by a generous donation from its namesake to enhance the national and international prominence of the Virginia Tech College of Science. Ms. Patricia Caldwell, who earned her bachelor's degree in mathematics as a 1971 graduate of Virginia Tech, established this fellowship to recognize faculty dedicated to extraordinary research and teaching; to recruit scholars with exceptional records of achievement; and/or retain high-performing faculty members who make significant contributions to the university's research efforts and beyond. A recipient shall hold the fellowship for a period of three years with possible renewal.

Dr. Sally C. Morton, dean of the College of Science, has nominated Dr. Amanda Morris, associate professor of chemistry, to be the recipient of this fellowship, concurring with the recommendation of the College of Science Honorifics Committee.

Dr. Morris joined the Department of Chemistry in 2011. She has published more than 40 peer-reviewed articles, attracted over \$2M in funding, graduated seven Ph.D. students, and mentored over 40 undergraduate researchers. Dr. Morris has won numerous external awards including the Inter-American Photochemical Society Young Investigator Award in 2017, she was named an Alfred P. Sloan Research Fellow in 2016, and she was awarded an NSF CAREER award in 2016.

Dr. Morris' research is focused on nature's photosynthetic system – a complex assembly of light harvesting arrays, electron transfer relays, and catalytic centers – that has inspired work in solar energy harvesting and storage. Fundamental research has led to advances in catalysis and light harvesting mimics. For example, her research group has successfully synthesized metal organic frameworks (MOFs) that display each component of photosynthetic activity. Via her investigation of energy transfer phenomena in MOFs, she has discovered two transformative scientific results. First, the mechanism of energy transfer between ruthenium polypyridyl complexes in MOFs broke previous scientific precedence and thought. Second, the three-dimensional structure of MOFs and the resultant alignment of chromophores leads to incredibly efficient long-range energy transfer. Both findings have major implications for energy transfer systems and provide a possible explanation for the often-observed super-quenching of light-harvesting MOF materials.

RECOMMENDATION:

That Amanda Morris, Ph.D. be appointed a Patricia Caldwell Faculty Fellow for a three-year term, effective August 10, 2019, with operating support as provided by the endowment and, if available, with funds from the eminent scholars match program.

August 26, 2019

ENDOWED FACULTY FELLOWSHIP
H.H.H. Faculty Fellowship in Economics

The H.H.H. Faculty Fellowship in Economics was established in the Department of Economics with a generous gift from Dr. Hans H. Haller. Dr. Haller began his career in the Department of Economics as an assistant professor in 1986 and has stayed in the department since then. He has supported numerous Ph.D. students and has been a great mentor for the junior faculty. He established this fellowship to provide support for an outstanding faculty member in economics with a preference for junior faculty or early-career faculty. A recipient shall hold the fellowship for a period of two years with the possibility of renewal.

Dr. Sally C. Morton, Dean of the College of Science, has nominated Dr. Gerelt Tserenjigmid, assistant professor of economics, to be the recipient of this fellowship, concurring with Dr. Sudipta Sarangi, head of the Department of Economics and with the recommendation of the Department of Economics Honorifics Committee.

Dr. Tserenjigmid joined Virginia Tech in fall of 2016, after completing his Ph.D. from Caltech. He is a theorist working on behavioral models of decision-theory. While decision-theory has established its identity as a separate field of research since at-least the 1950s, the infusion of behavioral modeling into it is fairly recent. Following the motto of behavioral economics, the focus of Dr. Tserenjigmid's research is not necessarily to build rational models of individual decision-making, but realistic models of human decision-making.

Dr. Tserenjigmid's research can be broadly categorized as belonging to four different (and often intersecting) areas of individual decision-making: (i) stochastic choice, (ii) choice over multi-attribute alternatives, (iii) dynamic choice, and (iv) choice under uncertainty. To date, he has published five papers including one in the Journal of Economic Theory which is a top general-interest journal. He has been a reviewer multiple times for some of the top journals in Economics like Econometrica and Journal of Economic Theory. He is currently an associate editor for Group Decisions and Negotiation. He has obtained funding from the Data and Decisions destination area on two occasions, including once for organizing decision-theory workshop at Virginia Tech that brought some of the best known researchers working in this area to Virginia Tech.

Dr. Gerelt Tserenjigmid has already established himself as a successful researcher at an early stage in his career. He is well known in the decision theory community both nationally and internationally. Dr. Tserenjigmid is working in an area that is truly interdisciplinary and at the frontiers of economic theory. His research form an integral part of the Data and Decisions Destination Area and the degree behavioral decision sciences degree that is being developed in the College of Science.

RECOMMENDATION:

That Gerelt Tserenjigmid, Ph.D. be appointed H.H.H. Faculty Fellow in Economics for a two-year term, effective August 10, 2019, with operating support as provided by the endowment and, if available, with funds from the eminent scholars match program.

August 26, 2019

**ENDOWED FACULTY FELLOWSHIP
Patricia Caldwell Faculty Fellowship**

The Patricia Caldwell Faculty Fellowship was established in 2019 by a generous donation from its namesake to enhance the national and international prominence of the Virginia Tech College of Science. Ms. Patricia Caldwell, who earned her bachelor's degree in mathematics as a 1971 graduate of Virginia Tech, established this fellowship to recognize faculty dedicated to extraordinary research and teaching; to recruit scholars with exceptional records of achievement; and/or retain high-performing faculty members who make significant contributions to the university's research efforts and beyond. A recipient shall hold the fellowship for a period of three years with possible renewal.

Dr. Sally C. Morton, dean of the College of Science, has nominated Dr. Shuhai Xiao, professor of geosciences, to be the recipient of this fellowship, concurring with the recommendation of the College of Science Honorifics Committee.

Dr. Xiao joined the Department of Geosciences in 2005 as an assistant professor. He was previously an assistant professor at Tulane University from 2000 to 2003. He earned his Ph.D. in biology from Harvard University in 1998.

Dr. Xiao's research is focused on understanding the complex interaction of biological and environmental evolution. As a historical geobiologist, Dr. Xiao integrates geological, fossil, and geochemical data to disentangle the complex interactions between biological and environmental evolution at critical transitions in earth history. His research provides geological contextualization for present and future environmental changes. As such, his research is ultimately relevant to decision making in climate and environmental policies.

With continuous research funding from National Aeronautics and Space Administration and the National Science Foundation over the last 20 years, Dr. Xiao has published 211 papers in peer-reviewed journals, including 24 papers in high-impact journals such as Science, Nature, Proceedings of the National Academy of Sciences (PNAS), Proceedings of the Royal Society, Nature Communications, and Science Advances. His publications have generated 11,565 citations and his research has generated significant impact and visibility beyond the scientific community, where it has been featured in major international, national, and regional news media, including CNN, the New York Times, the Washington Post, PBS, The Economist, and The Guardian.

Dr. Xiao is the recipient of the 2006 Charles Schuchert Award, the 2010 John Simon Guggenheim Fellowship, the 2010 Virginia Tech Alumni Award for Excellence in Research, the 2014 Sir Albert Charles Seward Memorial Lecturer, the 2016-2017 Phi Beta Kappa visiting scholarship, and the 2017 Virginia Outstanding Scientist Award. He is a fellow of the Kavli Frontiers of Science, Paleontological Society, and Geological Society of America.

RECOMMENDATION:

That Shuhai Xiao, Ph.D. be appointed a Patricia Caldwell Faculty Fellow for a three-year term, effective August 10, 2019, with operating support as provided by the endowment and, if available, with funds from the eminent scholars match program.

August 26, 2019