STEM Faculty Launch Program
2016 Participants

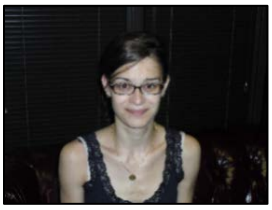
Mahi Abdelbar, is a PhD candidate in the Electrical & Computer Engineering Department at Virginia Tech, Blacksburg, VA. She received both her B.Sc. and M.Sc. degrees with honors from the Department of Electronics & Communications Engineering, Mansoura University, Egypt. She is now affiliated with the Wireless@VT Laboratory within Virginia Tech. During the spring and summer of 2014, she was a visiting scholar at the department of Electrical & Computer Engineering, University of Arizona, Tucson, AZ. Her research interests include, among other things, indoor positioning and localization, cooperative/collaborative wireless signal classification, data fusion, and machine learning algorithms.

Caroline Addington, is currently a postdoctoral researcher in School of Biological and Health Systems Engineering at Arizona State University working with Dr. Jeffrey Kleim. She received her Ph.D. in 2015 from Arizona State University working with Dr. Sarah Stabenfeldt and her B.S. in 2011 from Clemson University. During her tenure at Arizona State University, Dr. Addington has been awarded the ARCS Scholar Award, Dean's Dissertation Award, and Dean's Fellowship. Dr. Addington's work focuses on the development of regenerative medicine and regenerative rehabilitation strategies to promote recovery following traumatic brain injury. Currently, she is investigating combinatorial stem cell and motor rehabilitation therapies to enhance motor function recovery after brain injury. Her doctoral work focused on the development of novel stem cell transplant paradigms to improve transplant efficacy after brain injury. In December 2016, Dr. Addington will begin postdoctoral research with Drs. Alban Gaultier and Jonathan Kipnis in the Center for Brain Immunology and Glia in the School of Medicine at University of Virginia. In this capacity, she will be investigating crosstalk between the gut microbiome and the central nervous system in the context of depression. Her future research interests lie at the intersection of regenerative rehabilitation and gut-brain crosstalk after injury.

Laura Allen, Doctoral Candidate in the Psychology (Cognitive Science) Department at Arizona State University. Currently, she works for Dr. Danielle McNamara in the SoLET lab, and is affiliated with the Learning Sciences Institute, which is a multi-disciplinary organization that focuses on understanding how students learn and on developing methods to enhance their learning. The overarching aim of Laura's research is to better understand the cognitive processes involved in language comprehension, writing, knowledge acquisition, and conceptual change, and to apply that understanding to educational practice by developing and testing educational technologies. Much of her work involves the development and use of natural language processing tools (NLP) to provide a more nuanced understanding of the cognitive processes that are involved in text-based learning and communication. She then applies this research to educational technologies through the development of assessments and feedback that tap into the on-line cognitive and affective processes of individual system users.

Israel Almodóvar, Israel was born and raised in Puerto Rico where he finished a B.S. in Mathematics and a M.S. in Applied Mathematics. During his master's degree, he got exposed to Bayesian methods that sparked his interest in statistics. In 2011, Israel was admitted to the Statistics doctorate program in Iowa State University. As a graduate student, Israel co-funded the ISU SACNAS chapter which aims to create a community for STEM students, especially those from underrepresented groups. Currently, he is writing his dissertation in contributions to k-means clustering problems and expects to graduate in spring 2017. His research interest are applied multivariate techniques, functional Magnetic Resonance Imaging (fMRI) and statistical computing. He also enjoys traveling and learning from others cultures, especially through their food.

Dr. Andrea Arnold is a Postdoctoral Fellow with the Research Training Group in Mathematical Biology in the Department of Mathematics and the Center for Quantitative Sciences in Biomedicine at North Carolina State University (Raleigh, NC). She received her B.S. in Mathematics from Duquesne University (Pittsburgh, PA) in 2009 and her Ph.D. in Applied Mathematics from Case Western Reserve University (Cleveland, OH) in 2014. Her current research focuses on parameter estimation and uncertainty quantification in biological models, including patient-specific models for cardiovascular dynamics and models for epidemic diseases.



Séverine Biard, Post-doctoral Fellow in Mathematics. I am French. I am currently a postdoctoral fellow at University of Iceland since June 2016. I did all my studies at Université Pierre et Marie Curie (Paris VI) included my PhD thesis, defended on December 2013 under the supervision of Andrei Iordan. From the beginning of my PhD in 2010 until August 2014, I taught different topics in Mathematics in the same university. From that moment on, I spent 2 years as Visiting Assistant Professor at Texas A&M University in College Station. My research spans over Several Complex variables and complex geometry. I am interested in the geometry of pseudoconvex domains in Kähler manifolds, in particular in the existence of bounded plurisubharmonic exhaustion functions and its application to L^2 weighted estimates for the a-operator. This topic is closely related to tangential CR operator on Levi-flat hypersurfaces and creates bridges to pluripotential theory and complex dynamics.

Tisha Bohr, Currently working as a post doctoral research associate studying planaria regeneration in the Adler lab at Cornell University. She is particularly interested in the regulation of tissue specification during regeneration. She is also looking to expand her skills as a STEM educator during her post doctoral position. She is also looking to expand her skills as a STEM educator and develop tools using planaria as a model to teach research skills to undergraduates. Tisha received her B.S, in Biology from CSU Channel Islands where she also researched the regulation of Drosophila *even-skipped* and sea mammal myoglobin during development under Dr. Charles Sackerson. She was then awarded a Science Foundation of Ireland summer fellowship at Trinity College Dublin working with Dr. Paula Murphy where she compared the use of a conserved gene family of Wnt modulators during development in two vertebrate species. During her graduate research at UC Santa Cruz, she worked with Dr. Needhi Bhalla identifying how synapsis, a process in meiotic prophase, is monitored and regulated to ensure proper segregation of homologous chromosomes.

Guy David, mathematician currently working as a Courant Instructor at New York University, where he has been since graduating with a Ph.D. from UCLA in 2014. His research in pure mathematics centers on understanding the analysis and geometry of non-smooth, fractal, or otherwise singular spaces through generalizations of classical calculus and measure theory to these settings. This work uses tools that first arose in many areas, including harmonic analysis, differential geometry, and conformal function theory. Because non-smooth spaces now appear in many parts of pure and applied mathematics, his work often ties into fields such as group theory, dynamics, hyperbolic geometry, and metric embedding.

Sili Deng just defended her Ph.D. degree in Mechanical and Aerospace Engineering, Princeton University, and is joining Stanford University as a postdoctoral scholar. Deng's graduate work broadly encompasses kinetically-controlled phenomena in flames. Her major research has been in flame dynamics, including ignition and stabilization, and in soot, including PAH chemistry and soot-turbulence-chemistry interaction. Her current research interest is to engineer flames for nanomaterial synthesis for energy conversion and pollutant treatment applications.

Nadejda (Nadia) Drenska A native Bulgarian, I graduated from Sofia High School of Mathematics and moved to the US to attend Brown University. In 2012, I graduated with BSc Mathematics Honors, and BSc Applied Mathematics Honors.

I am currently a fifth year PhD at the Courant Institute, under the supervision of Robert Kohn. In my research, I use continuous methods to solve discrete problems. Typical applications are in machine learning.

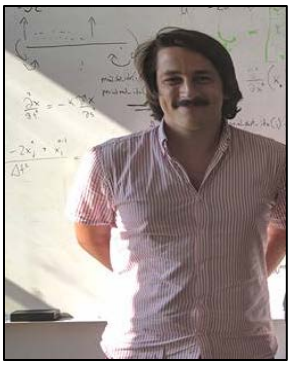
Parastou Eslami, completed my undergraduate degree at University of California, Berkeley in 2008 in mechanical engineering – where I graduated with honors. I attended Stanford University immediately after finishing my B.S and earned my Master degree in biomechanical engineering where I had a year-long internship conjoined with UCSF Biomechanics laboratory working on finite element modeling of the ovine heart failure and inducing active movement to the already dead myocardial tissue. I then joined the biomechanics division of L-3 Communications working on optimizing combat helmet paddings to prevent brain damage using finite element modeling. I started the PhD program at Johns Hopkins University in the mechanical engineering department and worked on estimating blood flow in coronary arteries via CT Imaging – where I was awarded a graduate partnership fellowship at National Heart, Lung and Blood Institute and collaborated with the advanced imaging department there. Currently, I am a T-32 post-doctoral fellow at the Massachusetts General Hospital-Harvard University in Cardiac PET-MR-CT program where I use engineering tools to analyze cardiac images.

Aditi Ghosh Post Doctorate, University of Idaho, Moscow, Jan-2016-present. Post Doctorate, Simon Fraser University, Sept-2014-Aug-2015. Ph.D. Mathematics, Texas A\&M University, December 2013. M.S Mathematics, University of Texas Pan America 2006-08. M.S Mathematics, Pure Science Department, Calcutta University 2003-2005. B.S Mathematics, Minor Physics and Chemistry, Calcutta University, 2000-2003.

My research interest lies in Applied Math with application to Bio-Mathematics, I am currently working on mathematical modeling of acetaminophen metabolism and liver injury and mathematical modeling of chemotaxis where we analyze

different interactions between four populations namely cells, ligands, receptors and decoy receptors. I am also interested in computational fluid dynamics. My thesis focuses on modeling of slow, steady, incompressible Navier Stokes flow within a circular cylinder. This model solves the biharmonic problem in a unit disc with different boundary conditions.

Heather Herd Gustafson received her B.S.E. in Biomedical Engineering from Case Western Reserve University and Ph.D. in Bioengineering from The University of Utah under Dr. Hamid Ghandehari. Her dissertation research focus was to elucidate the role that physicochemical characteristics played on nanoparticle intracellular uptake and fate within macrophages. During the course of her Ph.D. she was awarded a Department of Defense Predoctoral Fellowship, Whitaker International Foundation Fellowship and a German Academic Exchange Fellowship, which allowed her to earn an additional Euro Ph.D. under Dr. Claus Michael Lehr from Saarland University. She currently holds a Cardiovascular Biology Postdoctoral Fellowship at the University of Washington under the direction of Dr. Suzie Pun. In her postdoctoral work, she is focused on developing drug delivery systems for cancer applications. Her career goals are to run an independent research lab focusing on developing macrophage targeted therapeutics that can re-education the tumor microenvironment and aide in combating metastatic disease.



Alexander Hoover, Tulane University
B.A., B.S. Case Western Reserve University 2010
PhD University of North Carolina at Chapel Hill 2015

My current research interests lies at the intersection of mathematical biology, computational fluid dynamic, and structural mechanics, with the integration of neuromuscular models for use in fluid-structure interaction problems. I'm generally interested in mathematical biology, biofluids, computational fluid dynamics, and neuromechanics.

Emma Hovhannisyan, PhD Student, Department of Mathematics, University of Zurich

Bachelor Degree: National Polytechnic University of Armenia, 2011
Master Degree: ETH Zurich, 2014
Research Interests: random matrices, probability theory, stochastic processes.

Wenwen Huang, Department of Biomedical Engineering, Tufts University
B.S., Physics, Peking University, China, 2005
M.S., Physics, Tufts University, USA, 2007
Ph.D., Polymer Physics, Tufts University, USA, 2012

Research Interests: My research interests focus on applied bio-polymer studies including stimuli-responsive and hierarchical biomaterial design, controlled release, tissue engineering, biomineralization and energy storage, as well as, fundamental studies related to protein self-assembly mechanism, thermal analysis and protein-water interaction.

Eric James, M.S., PhD, Post-Doctoral Fellow, Tufts University, Department of Biomedical Engineering, Tissue Engineering Research Center. I earned my B.S. in Biology at Stillman College, Tuscaloosa AL in 2006. I continued my education and earned a Professional Science Master's degree in the applied genetics, genomics and bioinformatics program in 2009, at the University of Connecticut, Storrs. I earned my PhD in the Biomedical Sciences, at the UConn Health, where I developed biodegradable nanofibers to enhance matrix production by delivering drug/genes to promote bone fracture healing. Currently, I am a post-doctoral research fellow at Tufts University in department of Biomedical Engineering. My research is based on non-viral gene delivery using biodegradable silk based orthopedic devices (screws, plates and rods) for critical size wound healing. My future milestone is to obtain an academic research position that allows me to conduct clinical and translation tissue engineering research while also serving as a mentor and instructor to college students, as well as low-income/underrepresented minorities in the sciences.

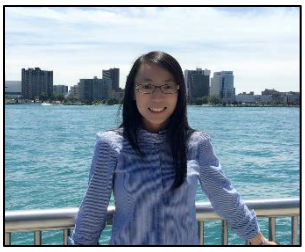
Jiahua Jiang is a fourth-year PhD student in Computational Science and Engineering at the University of Massachusetts Dartmouth, where I worked with Prof. Yanlai Chen and Prof. Akil Narayan. My research concerns Reduced Ordering Modeling, Uncertainty Quanti_cation, Anderson Acceleration and Multi-grid. More broadly, my research interests include Numerical optimization and High Performance Computing.

Dr. Vicky Karanikola is an assistant research professor at the Chemical and Environmental Engineering department at University of Arizona (UA). Dr. Karanikola has a interdisciplinary engineering background combining a BS in Mechanical Engineering from Technical Institute of Serres, Aristotle University, Greece, a MSc degree in Civil Engineering from San Diego State University (SDSU), and both MSc and PhD degrees in Environmental Engineering from the UA. Prior to her graduate studies she worked in the construction industry for 3 years as a mechanical engineer, leading her to graduate school for a civil engineering degree. During her MSc studies in SDSU, she researched soil wave propagation and ballast water filtration through flexible filter matrices. As a PhD and Postdoctoral associate her research interests involve solar water desalination, through hybrid thermal processes (Membrane Distillation), Reverse Osmosis (RO) and Nanofiltration (NF). Alongside with her academic career she is very strongly involved with EWB (Engineers without Borders), an organization that works on engineering projects in developing communities. She has served as the project manager for a sanitation project in Bolivia and is currently involved in an irrigation project in the Apache Reservation.

Jennifer Kile, applied mathematician currently finishing my last year in the PhD program at Rensselaer Polytechnic Institute. Though I have varied interests in the field of mathematical biology, my thesis research focuses on computational neuroscience. I model neurons in a small portion of the cerebral cortex using Hodgkin-Huxley type equations in order to further understand how specific types of connections can affect synchrony of such a network. This synchrony plays a large role in attention, learning and memory in developing, as well as developed, brains and thus understanding the role of different types of connectivity is important. I am still amazed every day at the versatility and beauty of mathematics, and one of my aspirations is to be able to spread this joy and amazement to young mathematicians through teaching and undergraduate research.

Molly Kozminsky, fifth-year PhD candidate in the Department of Chemical Engineering at the University of Michigan. In my research, I take advantage of chemical engineering principles to work with clinicians and biologists on medical problems, specifically the challenge of isolating and studying circulating tumor cells found in the bloodstream of cancer patients. Working with others across disciplines toward a common goal has been the most rewarding part of my time at Michigan; in the future, I hope to bring my commitment to interdisciplinary research to a tenure track faculty position at a research institution. I also enjoy teaching at the undergraduate level. Following my time as a graduate student instructor, I became an engineering teaching consultant with the Center for Research on Learning in Teaching in Engineering. When I'm not in lab or the classroom, I enjoy reading, pilates, and excessively experimental baking.

Anamary Leal, doctoral candidate at Virginia Tech's Computer Science program in the Center of Human-Computer Interaction. I am passionate about creation, whether it's creating through arts and crafts, or virtually. My research is about design technologies and interactions that empower others to build, make, sew in the real world, such as building a costume, work with wood or metal, or electronics. My thesis specifically helps costume designers and everyday people explore fabric remotely, by investigating how can technology represent ambigous topics like fabrics. I am also interested in arts and design, as I served as a costumer for Community Theater, costume shop assistant for Virginia Tech's School of Performing Arts, and as a hobbyist costumer, with costumes, some award winning. I plan to be a university professor in a computer science, design, or a multimedia department after graduation.



Bo Li, had a Bachelor Degree in Computer Science from Tongji University (2011), and she obtained her Ph.D. Degree from Vanderbilt University in 2016. Li is currently a postdoctoral researcher in University of Michigan. Bo Li's research focuses on adversarial machine learning, privacy, security, and game theory. She has developed and analyzed robust learning algorithms for different learning systems in adversarial environments and a data sanitization system for privacy preserving data publishing. She is currently working on robust social networks and robust distributed systems against sophisticated attacks based on real-world big data and on adversarial deep learning currently. Bo believes that game theoretic modeling and analysis can help make intelligent decisions for security challenges faced by learning systems. She also tries to evaluate the uncertainty about threat models and develop more realistic systems to not only preserve robustness, but also optimize the resource allocation based on real-world constraints. Bo has been awarded a Symantec Research Labs Graduate Fellowship in 2015 as one of three recipients nationwide of the prestigious fellowship during her Ph.D and several other academic awards.

John David Obayemi is currently has a Lecturer and Post-Doctoral Research Associate in the department of Mechanical and Aerospace Engineering at Princeton University, Princeton, New Jersey. His research focuses on the development of engineered theranostic nanoparticles/drug clusters as well as tissue engineered structures for specific targeting and treatment of cancer. John obtained an upper class Bachelor of Engineering (B.Eng.) degree in Mechanical Engineering from the Ahmadu Bello University (ABU), Zaria in 2009. He further received an MSc and a Ph.D. degree under the World Bank and African Development Bank Fellowships from the African University of Science and Technology (AUST) in 2011 and 2015, respectively. During John's graduate program at AUST, he was a visiting student in Princeton University and Rutgers University in 2012 and 2013, respectively. John's PhD dissertation was entitled "Nano- and Micro-particles for the Detection and Treatment of Cancer". Dr. Obayemi has coauthored over 10 publications in peer-reviewed journals. His work has evolved from the development of functionalized magnetite nanoparticles that are being conjugated with molecular recognition units (MRU) [Luteinizing Hormone Releasing Hormone (LHRH) and Eph Receptor A2 (EphA2)] to their applications for specific targeting of breast cancer cells/tissue.

Brooke Odle, Postdoctoral Scholar
Department of Biomedical Engineering, Case Western Reserve University
B. S., University of Pittsburgh, 2006
M. S., New Jersey Institute of Technology, 2009
Ph. D., New Jersey Institute of Technology and Rutgers University Biomedical and Health Sciences (Joint Program in Biomedical Engineering), 2014

Research Interests: Rehabilitation engineering, Biomechanics, Computational musculoskeletal modeling, Spinal cord injury

Catherine Payne obtained her B.A in mathematics with teaching licensure from the University of North Carolina at Greensboro in 2008. She continued at UNCG to obtain a master's degree in math in 2010. Her thesis was in the area of topological set theory. After a brief experience teaching high school math and then working in healthcare data analytics, she decided to pursue a Ph.D. in math.

Catherine is currently in her final year of the Ph.D. program and plans to graduate in 2017. Her dissertation is in the area of numerical differential equations. She is particularly interested in stability and approximation of linear delay-differential equations.

Ed Pearson III, a native of Greene County, Alabama, from the quaint and peaceful town of Eutaw. I am currently pursuing my PhD at Mississippi State University located in Starkville, Mississippi. At Mississippi State, I am majoring in computer science. More specifically, I am specializing in Human-Computer Interaction Security (HCISec), which is a combination of Human-Computer Interaction and Cyber Security. Software Engineering is my supporting area. I completed my Bachelor's and Master's degrees at Alabama A&M University, located in Huntsville, Alabama. I am member of Upsilon Pi Epsilon and a recipient of the Scholarship for Service (SFS). I plan to complete my degree by the Spring of 2017. After graduation, I plan to return back to Alabama A&M University to impart as much knowledge on future generations to come.

Moumanti Podder, Courant Institute of Mathematical Sciences, NYU. With Joel Spencer, Alexander Holroyd, Yuval Peres, Tobias Johnson: Probabilities of first order properties of Galton-Watson trees; second order properties on Galton-Watson trees and their expressibility almost surely as existential monadic second order logic; specialized classes of second order logic whose probabilities retain nice characteristic of _rst order probabilities; interpretability of solutions obtained from equations derived from tree automata etc.

With Tim Austin: Ising models on locally tree-like graphs, identification of sofic and percolative entropies on regular infinite trees under strong spatial mixing etc.
With Mihyun Kang: Central limit theorems on random hypergraphs.\

Jorge Rodriguez, earned his doctorate degree in the Biomedical Engineering track within the Materials Science and Engineering program from the University of Texas at El Paso (UTEP) in 2013. Prior to earning his doctoral degree, he worked for six years in product design/development in automotive industry (Delphi Automotive Systems/Inteva LLC). Dr. Rodriguez received his bachelor degree with a double major on mechanical and electrical engineering in his hometown university in Ciudad Juarez, Mexico. Dr. Rodriguez research focus in understanding the role of the mechanical properties of cancer cells on their metastatic

behavior and in the creation of more relevant screening platforms in support of a more personalized and predictive chemotherapy. In 2013, he joined Clemson in the department of bioengineering as postdoctoral researcher and later joined the Mechanical Engineering Department as Lecturer in August, 2016.

Mackenzie Smith, Department of Math & Science, Henry Ford College
Ph.D. Physics, Wayne State University, 2016
B.S. Physics, University of Michigan - Dearborn, 2005
I am interested in high energy particle physics, focusing on searches for physics beyond the Standard Model, as well as hadron formation and Strong dynamics.

Murad Tovmasyan, PhD student, Institute for Theoretical Physics, ETH Zurich
MSc ETH in Physics, ETH Zurich, 2013
BSc in Physics with Honour, Yerevan State University, 2010
Research interests: strongly correlated systems, many-body systems out of equilibrium

Bishan Yang, is a Postdoctoral Fellow in the Machine Learning Department at Carnegie Mellon University. She received her Ph.D. in Computer Science from Cornell University and her M.S. and B.S. in Computer Science from Peking University. Her research interest is in developing machine learning and statistical techniques for knowledge extraction and natural language understanding.

Amin Zargar is a chemical and biomedical engineer working as a postdoctoral fellow at UC Berkeley for Dr. Jay Keasling. Amin has earned a B.S. and M.S. in chemical engineering from Georgia Tech, and the University of Maryland, respectively. After working in industry as an operations manager, Amin returned to UMD and earned a PhD in bioengineering. First introduced to research as an undergraduate in tissue engineering, Amin later studied polymer reaction engineering during his M.S. and published three papers detailing a low-dimensional method to account for sequence structure and branching in polymerization reactions. Stimulated by a class on start-up ventures in biotechnology, Amin switched fields and joined Dr. William Bentley's laboratory in the Bioengineering department. From a background almost devoid of experimental research experience, he elucidated interkingdom communication from quorum sensing molecules, clarified the mechanics of quorum sensing (QS) processing, developed a quorum-quenching bacteria that could reduce biofilms and other QS phenotypes, and designed a metabolic engineering platform that used quorum sensing molecules to enhance protein production. Currently, he focuses on understanding and manipulating polyketide synthases to produce specialty biofuels and commodity chemicals, expanding his skill set to analytical chemistry, biochemistry and enzyme engineering.

Susannah G. Zhang, Department of Physics, UGA
BSEd, Indiana University of Pennsylvania, 2012
PhD, University of Georgia, 2018 (expected)

Research Interests: Dynamics of complexes with open-shell molecules, specifically Nitric Oxide complexes with rare gas atoms. Spectroscopy, mm-waves

STEM Faculty Launch Program
2015 Participants

Angelynn Alvarez, Department of Mathematics, University of Houston, BS Mathematics, University of Houston, 2011, MS Mathematics, University of Houston, 2013, PhD Mathematics, University of Houston, 2016 (expected)

Research Interests: Hermitian and Kähler geometry; Holomorphic Sectional Curvature, Ricci Curvature, Scalar Curvature on Complex Manifolds; Positivity in Algebraic Geometry

Vahan Hovhannisyan, PhD student, Computational Optimisation Group
Department of Computing, Imperial College London
BS, State Engineering University of Armenia, 2009
MS, ETH Zurich Switzerland, 2013

Research Interests: Convex optimization, multi-level algorithms, first order methods, computer vision, and pattern recognition.

Derrick J. Morton, Department of Biological Sciences, Center for Cancer Research and Therapeutic Development, Clark Atlanta University
BS, Eastern Kentucky University, 2009
PhD, Clark Atlanta University, May 2016

Research Interests: My overall research interest is to understand the molecular mechanisms involved in initiation and progression of cancers in general and that of the prostate in particular. We use a global systems approach using diverse data sets to understand the fundamental biological processes involved in cancer. These biological processes, primarily involve regulatory relationships between genes, proteins and the environment. Collectively, our systems approach provides the role transcriptional control mechanisms, cell fate decisions, signal transduction and metabolic pathways in cancer development.

Yenny Cardona Quintero
B.S., National University of Colombia, 2006
M.Sc., University of Puerto Rico, 2009
Ph.D., University of Connecticut, 2014

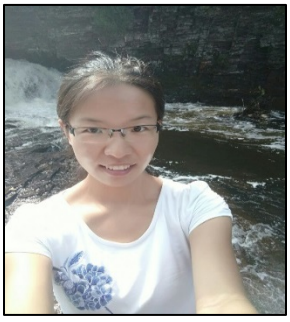
Research Interest: Modeling and design of nano-structures. Calculation of electronic, mechanical and thermal properties using density functional theory and beyond methods. Model of metal and oxide surfaces and metal-metal oxide interfaces. Determine the effect of self-assembled monolayers on the properties of surfaces and interfaces. Modeling of molecular crystals and calculation of their electronic properties.

Tiffiny A. Butler, Postdoctoral Research Fellow
Department of Biomedical Engineering, WPI
BS, Eastern University, 2007
MS, Temple University, 2009
PhD, Temple University, 2014

Research Interests: How intramedullary fat relates to bone biomechanical variables, specifically in the spinal cord injured; Exercise and Bone; Nutrition and Bone Biomechanics

Alex D. Austin, Department of Mathematics, UIC
MMATH, University of Warwick, 2010
PhD, University of Illinois at Chicago, 2016 (expected)

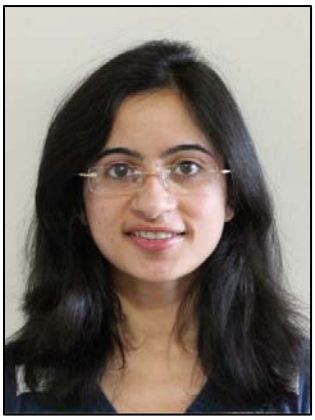
Research Interests: Quasiconformal mappings, sub-Riemannian geometry, analysis in metric spaces, geometric measure theory.



Huanhuan (Sophie) Zhu, Department of Mathematical science, MTU
BS, Qufu Normal University, China, 2009-2013
PhD, Michigan Technological University, 2013-Now

Research Interests: Statistical Genetics, data analysis

Yougan Cheng, School of Mathematics, UMN (NO PICTURE)
BS, East China Normal University, 2009
PhD, Case Western Reserve University, 2014
Research Interests: Mathematical Biology, Mathematical modeling of complex systems, Dynamics systems

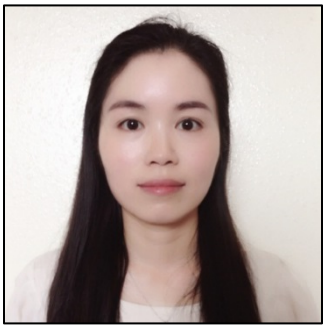


Snigdha Chaturvedi, Computer Science, University of Maryland, College Park
PhD, Computer Science, University of Maryland, College Park, Ongoing
MS, Computer Science, University of Maryland, College Park, 2014
B.Tech, Computer Science and Engineering, Indian Institute of Technology (IIT), Kanpur, 2009

Research Interests: Natural Language Understanding, Machine Learning, Social Computing, Latent Variable Models

Christina Hamlet, Department of Mathematics, Tulane University
BS, University of South Florida, 2003
MS, University of South Florida, 2005
PhD, University of North Carolina at Chapel Hill, 2011

Research Interests: Multiscale modeling of biological systems and fluid structure interaction problems. Fluid dynamics and mechanical properties of marine organisms. Immersed boundary methods, biologically-inspired designs, mathematical modeling.



Yanfang Yang, Department of Mathematics, TAMU
BS, Hunan Normal University, China, 2008
MS, Xi'an Jiaotong University, 2011
PhD, Texas A&M University, in progress

Research Interests: Local-Global model reduction for flows in heterogeneous porous media;Global adaptivity;Stable Newton-like method for the transport equation with big time-stepping;Weak gradient generalized multi-scale finite element method

Kyle G. Schomp
BS, Case Western Reserve University, 2006
MS, Case Western Reserve University, 2010
PhD, Case Western Reserve University, 2015

Research Interests: Computer Network and Distributed Systems; Internet Measurement; Privacy and Security

Jing Tian, Department of Mathematics, Texas A&M University
BS, China University of Mining and Technology, 2010
MS, University of Texas Pan-American, 2012
PhD, Texas A&M University, 2016 (expected)

Research Interests: Navier-Stokes Equations, Wave Equations, Nonlinear PDEs, Computational Fluid Dynamics and Chaos Theory

Shreya Kumar, Computer Science Department, Michigan Technological University
BE, University of Pune, India, 2007
MS, Michigan Technological University, 2013

Research Interests: Software Engineering, Software Process, Computer Science Education, HCI and Usability, Gerontechnology, Senior Citizens and Computing

Hoang-Ngan Nguyen
Applied Mathematics Unit
University of California, Merced
BS, Hanoi University of Technology, 2005
PhD, Tulane University, 2012

Research Interests: Computational Fluid Dynamics, Numerical Analysis, and Scientific Computing

Cibele Freire, College of Information and Computer Sciences, Umass
BS, Federal University of Ceara, 2007
MS, Federal University of Ceara, 2010
MS, Umass Amherst, 2014
PhD, Umass Amherst, (expected) 2016

Research Interests: Theoretical computer science, more specifically Computational Complexity, Descriptive Complexity and Logic; Database theory.

Hillary L. Smith, Postdoc
Department of Applied Physics & Materials Science, Caltech
BS, Bryn Mawr College, 2006
PhD, California Institute of Technology, 2014

Research Interests: Materials physics and chemistry; Energy storage materials for lithium-ion batteries and hydrogen storage; Entropy of phase transitions in metal alloys and bulk metallic glasses; Neutron and x-ray scattering, Mossbauer spectroscopy, and Monte Carlo simulations

Emma Tosch, College of Information and Computer Science, University of Massachusetts Amherst
BA, Wellesley College, 2008
MA, Brandeis University, 2011
PhD, University of Massachusetts Amherst, 2017

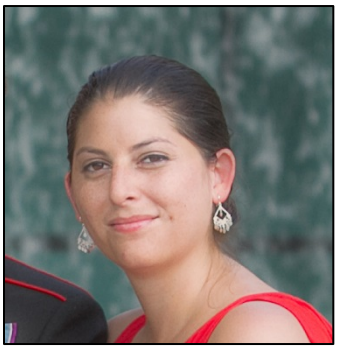
Research Interests: Programming Languages, Software Systems, Usability, Experimental Design, Statistics

Carli D. Flynn, Department of Civil and Environmental Engineering, Syracuse University
BS, Cornell University, 2009
MS, Carnegie Mellon University, 2010
PhD, Syracuse University, 2016 (expected)

Research Interests: Design of sustainable urban infrastructure systems; Social-ecological systems studies; Sustainable technology adoption and diffusion; Use of field data to enhance STEM education

Sarah A. Nelson, Department of Mathematics, UKY
BS, University of Tennessee at Chattanooga, 2011
Applied Mathematics and Secondary Mathematics
BA, University of Tennessee at Chattanooga, 2011
Humanities
MA, University of Kentucky, 2013
PhD, University of Kentucky, expected 2016

Research Interests: Algebraic and geometric combinatorics, especially problems in enumerative combinatorics related to polytopes and winding numbers.



Denise A. Rangel Tracy
Department of Mathematics, Syracuse University
BS, University of North Carolina- Greensboro, 2008
MA, University of North Carolina- Greensboro, 2010 -Advisor: Paul Duvall
PhD, University of Texas- Arlington, 2014 - Advisor: David Jorgensen

Research Interests: Commutative and homology algebra, representation theory.

Liz Wayne, Department of Biomedical Engineering, Cornell University
BS, University of Pennsylvania, 2009
MS, Cornell University, 2013
PhD, Cornell University, 2015

Research Interests: cancer metastasis; cell mediated drug delivery; immunotherapy; optical imaging; circulating tumor cells; liposomes; leukocytes; tumor microenvironment; extravasation

Dominique Ebony Williams, Postdoctoral Scholar, Department of Chemistry, Stony Brook University
BS, Virginia Commonwealth University, 2009
PhD, Georgia State University, 2014

Research Interests: Biocatalysis and biomimetic catalysis, Nitric-Oxide regulation of bacterial biofilms, C-di-GMP metabolic enzymes: Phosphodiesterase and diguanylate cyclase, Metal-based photocleavage and hydrolytic agents

Sandra V. Vergara, UMass Medical School

RNA Therapeutics Institute
Worcester, MA
BS, University of Florida, 2003
PhD, Duke University, 2010
Post-doc, UMass Medical School, since 2011
Research Interests: Germline development; post-transcriptional mechanisms of gene expression control; chemical modifications of RNA; mRNA processing; AU-rich Element mediated regulation of mRNA stability.

Huan Gu, Department of Biomedical and Chemical Engineering, SU
BS, China University of Mining & Technology, Beijing, CHINA, 2002
MS, China University of Mining & Technology, Beijing, CHINA, 2006
Ph.D., Syracuse University, 2009

Research Interests: Understanding the mechanisms of biofilm formation and biofilm related high antibiotic resistance using chemical and physical surface engineering; developing antifouling surfaces via surface engineering; investigating the competition and cooperation between pathogenic strains in multispecies biofilm; bacteria-host interaction.

Mojdeh A. Pajouh, Department of Civil Engineering
Texas A&M University
BS, KNT University of Technology, 2002
MS, Tehran Polytechnic, 2006
PhD, Texas A&M University, 2015

Research Interests: Computational geomechnics, Numerical Simulation of Extreme Events, Geo-seismic Engineering, Soil-Structure Interaction, Crashworthy Analysis, Roadside Safety, Deep Foundations, LS-DYNA

Danielle McShan, Department of Chemistry, Jackson State University
BS, Talladega College, 2004
MS, Jackson State University, 2009
PhD, Jackson State University, 2014

Research Interests: Bio-nanotechnology, with an emphasis on the development of methods with nanomaterials to destroy toxins and there toxicity when exposed Enzyme inhibitions in drug discovery Bioanalytical methods development associated with drug discovery and compatibility with nanomaterials.