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# Texas Women in Math Symposium

## 2020

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Texas A&M University

*February 1-2, 2020*

## Panelists

- **Dr. Nicole Bridgland**

*World Wide Technology*

Nicole received her bachelor's degree in mathematics and music from Grinnell College. She studied algebraic geometry in Germany on a Fulbright grant for a year after graduating, and then started graduate school at the University of Minnesota. She graduated with her PhD (commutative algebra) in 2018, and has worked as a data scientist at World Wide Technology for the last one and a half years. She's contributed to white papers on generative adversarial networks, and worked on several projects related to metal mining. Previous math jobs include REUs (research experience for undergraduates) during college, and teaching at the University of Minnesota and Macalester College during graduate school.

- **Dr. Lauren Ferguson**

*Air Force Research Laboratory*

Dr. Lauren Ferguson is a Research Mathematician at the Air Force Research Laboratory in the Composites Branch of the Materials & Manufacturing Directorate in Dayton, OH. She earned her PhD in mathematics from Texas A&M University where she became interested in mathematical applications to materials science problems through an NSF fellowship. Her current work focuses on developing state-of-the-art simulation tools for composite materials that accurately model post-processing material state, capture complex damage patterns due to service loads and environments, and predict remaining life. These tools are critical for shortening the certification timeline for new materials in Air Force systems, as well as informing sustainment decisions. Dr. Ferguson has also jumped on the machine learning bandwagon to improve material characterization methods and enable discovery of microstructural features influencing macroscopic behavior.

- **Dr. Dinara Khalmanova**

*Shell Canada Limited*

Dr. Dinara Khalmanova grew up in Kazakhstan, graduated from Karaganda State University and continued her education in Texas A&M university, Department of Mathematics. After obtaining a PhD degree in 2004, she worked as a researcher/instructor in Penn State University for two years. Royal Dutch Shell energy company offered her a position of petroleum engineer in 2008 and she stayed with this company ever since. Her husband also works for Shell and they have two boys. With Shell, she worked on a variety of oil & gas research, technology development and exploration and production projects in various

parts of the world, having lived in the Netherlands, Canada and Russia. Her family has recently moved back to Calgary with the intention to stay here for a long while.

- **Dr. Kaitlyn Phillipson**

*St. Edward's University*

Dr. Kaitlyn Phillipson is an assistant professor at St. Edwards University in Austin, TX. She joined St. Edwards after obtaining her Ph.D. in mathematics from Texas A&M University in August 2016 under the direction of Dr. J. Maurice Rojas. Her research area is computational algebraic geometry with a current focus on neural coding. At St. Edwards University, she has taught courses in the Calculus sequence, Discrete Math, Cryptography, and Abstract Algebra, and is a mentor for the four-semester research sequence. Kaitlyn regularly presents at Math Circles and Teachers Circles around Texas and hosts mathematical outreach events.

- **Dr. Julia Plavnik**

*Indiana University*

Dr. Julia Plavnik is the Charlotte Ann Griffin Assistant Professor, Mathematics at Indiana University, Bloomington. She joined Indiana University in 2018 after being a Visiting Assistant Professor at Texas A&M University. Julia is originally from Argentina and she got her Ph.D. in 2013 at Universidad Nacional de Cordoba, Argentina. Her research interests is, broadly speaking, on quantum symmetries, with a focus on (modular) tensor categories, their classification, properties, and physics applications to topological phases of matter and quantum computing, with a special interest in noncommutative algebra (for example, Hopf algebras) and their cohomological properties and representation of the braid group. At the moment, Julia is a research member of the Spring semester on Quantum Symmetries at MSRI. She actively organizes conferences and special sessions, and at least once a year one of them is in Latin America, trying to strengthen connections and collaborations.

- **Dr. Fatma Terzioglu**

*University of Chicago*

Fatma Terzioglu is a William H. Kruskal instructor in the Statistics Department at the University of Chicago. She received her PhD degree in Mathematics in 2018 from Texas A&M University. She was the founding member and president of the TAMU-AWM from Fall 2015 to Spring 2017. Her research interests primarily lie in the fields of Inverse Problems and Imaging, and Applied Harmonic Analysis.