Statistics, Topology and Data Analysis
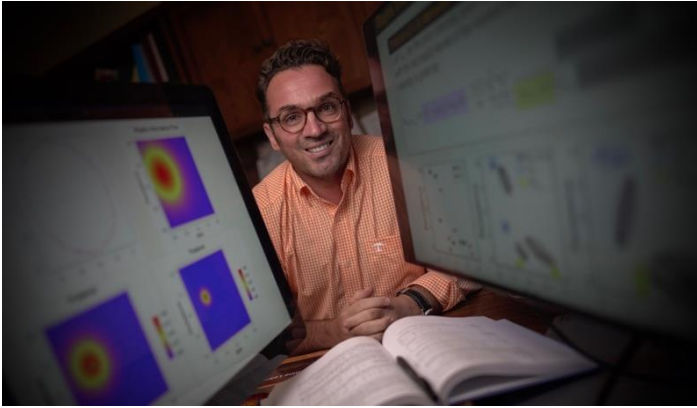
In this talk, the speaker will discuss how statistics and topological data analysis are beautifully complement each other to solve real data problems. As a paradigm, the soeaker will discuss supervised learning, and present a classification approach using a novel Bayesian framework for persistent homology. An application to materials science will be discussed.

Vasileios Maroulas, Ph.D.
Professor of Mathematics and
Bredesen Center's Data Science Engineering
University of Tennessee, Knoxville

Date: Friday, February 26, 2021
Time: 1:00 – 2:00 p.m. US Central Time
Zoom Meeting ID: 998 4499 3279
Passcode: 724615
Faculty host: Bani Mallick, STAT

Biography

Vasileios Maroulas is a Professor of Mathematics with joint appointments at the Business Analytics and Statistics, and the Bredesen Center's Data Science Engineering at the University of Tennessee, Knoxville (UTK). He is a Senior Research Fellow at the US Army Research Lab, an Elected Member of the International Statistical Institute, and an Editor-in-Chief of Foundations of Data Science published by AIMS. Following his PhD graduation from the Statistics Department at the University of North Carolina at Chapel Hill in 2008, he continued as a Lockheed Martin Postdoctoral Fellow at the IMA at the University of Minnesota for two years until he joined UTK in 2010 as an Assistant Professor. Maroulas was also a Mathematical Sciences Leverhulme Trust Fellow at the University of Bath, UK during 2013-2014. His research interests span from computational statistics and machine learning to applied probability and computational topology and geometry with applications in data analysis and quantum computing. His methods have found applications in chemistry, neuroscience, materials science, and biology. His work has been funded by several federal agencies, including AFOSR, ARO, DOE, and NSF; by national labs and private foundations, including ARL, ORNL, the Simons Foundation, and the Leverhulme Trust in the UK; as well as by industry, including Eastman, and Thor Industries.

You can also click this link to join the seminar https://tamu.zoom.us/j/99844993279?pwd=TkJodWFVRURyMmkwakI4SWZGeVJTQT09

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