Dr. Tristan Buckmaster

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Tristan Buckmaster is a Professor of Mathematics at the University of Maryland. He completed his PhD at the University of Leipzig/Max Planck Institute for Mathematics in the Sciences, Leipzig, Germany in 2014. He then spent three years as a Courant Instructor at New York University. He was appointed an Assistant Professor at Princeton University in 2017 and appointed a Professor at the University of Maryland in 2022.

His main area of interest is partial differential equations with a particular focus on equations related to hydrodynamics. He was awarded the 2019 Clay Research Award, together with Vlad Vicol for their work regarding the non-uniqueness of weak solutions to the Navier-Stokes equations.

Title: Singularities in fluids

Abstract: In this presentation, I will delve into recent research pertaining to fluid singularities. Specifically, I will explore topics such as self-similar analysis, computer-assisted proofs, and physics-informed neural networks. The existence of singularities raises intriguing new questions that I will also address.