



UNIVERSITY OF CENTRAL FLORIDA

## COLLOQUIUM

### *Asymptotic Analysis of Riemann-Hilbert Problems: From the Behavior of $N!$ to the Behavior of Solutions of Partial Differential Equations*

Speaker: Professor Kenneth McLaughlin

Affiliation: Tulane University

#### Abstract

This presentation is intended for graduate students and undergraduate students. It is an advertisement for complex analysis. We will start with the remarkable Stirling's formula which describes the behavior of  $N!$  when  $N$  is large, as a tool to introduce the asymptotic analysis of Riemann-Hilbert problems. Then we will delve into the connection to partial differential equations.

#### Speaker Bio



*Professor Kenneth McLaughlin is the Evelyn and John G. Phillips Distinguished Chair in Mathematics at Tulane University. He received his B.A. in Mathematics in 1989 and Ph.D. in Mathematics in 1994, both from New York University. Before joining Tulane in 2022, he held faculty positions at the University of North Carolina at Chapel Hill, the University of Arizona, the Universidade Federal de Brasília, and Colorado State University, where he served as Chair of the Department of Mathematics. His research focuses on integrable systems and the mathematical analysis of complex phenomena, drawing on techniques from diverse areas of mathematics.*

#### Event Details

- **Date:** Monday, October 19, 2026
- **Time:** 3:30 PM – 4:30 PM
- **Location:** MSB 318

*Refreshments will be served from 2:30pm–3:30pm in MSB 201*

Dr. Yvette Kanouff School of Data, Mathematical, and Statistical Sciences