

# Colloquium

University of Notre Dame  
Department of Mathematics

Siqi Fu - Rutgers University at Camden

**Speaker:** Siqi Fu

Rutgers University at Camden

**Will give a lecture entitled**

Hearing the shape of a drum with several complex variables ears

**Date:** Wednesday, September 27, 2023

**Time:** 4:00 PM

**Location:** 129 Hayes-Healy Hall

**Zoom URL:** NA



**Departmental Tea:** Tea in Room 257 (lounge in Hurley Hall) at 3:30 p.m.

**Abstract:**

Mark Kac's question "Can One Hear the Shape of a Drum?" asks whether one can determine the shape of a planar domain from the eigenvalues of the Laplace operator with the Dirichlet boundary condition. In this expository talk, we will discuss the several complex variables analogue of Mark Kac's question: To what extent can one determine geometric properties of a domain in several complex variables from spectral properties of the complex Neumann Laplacian? We will present relevant results as well as open problems in both real and complex Euclidean spaces