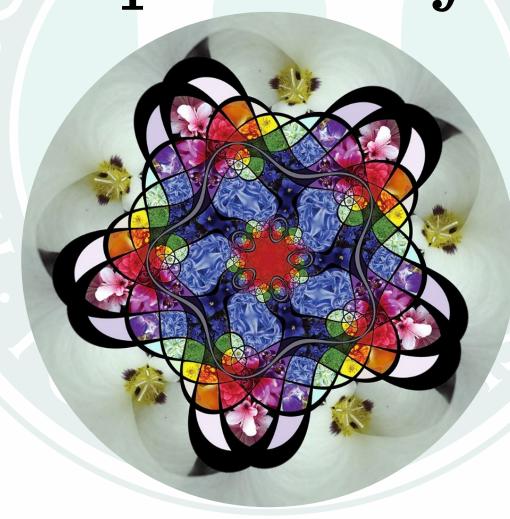# DEPARTMENT OF MATHEMATICS
Spring Colloquium Series

Mathematical Art from Complex Analysis

Frank A. Farris, Santa Clara University

In Creating Symmetry, The Artful Mathematics of Wallpaper Patterns, I explain a process to create wallpaper patterns from photographs using ideas from partial differential equations and complex analysis. In this talk, complex numbers take center stage. What are they and why are they useful in making images like the one shown? Using the domain coloring algorithm, which I proposed in the late '90s, we illustrate many familiar concepts from complex analysis. Then we take a step in the direction of art, using photographic material as our color palette. Completing the complex plane to the Riemann sphere gives us even more flexibility.

Thursday, April 25, 2019   BSS Room 166, 4:00 PM