# Undergraduate Colloquium in Mathematics
Wednesday, Oct. 18th 3:30 PM – 4:30 PM
STV 308

Complex Analysis and Its Applications
Lucian Ionescu, ISU

Geometrically, complex numbers represent 2D-rotations: are not imaginary, and quite mandatory in sciences which deal with periodic phenomena. We will explain how differentiation of complex functions has to do with rotations too. Some concrete applications of Complex Analysis will be provided: computing integrals using residues (Gaussian distributions in statistics), unifying the two Green's Theorems, understanding fluid flows, Electromagnetism etc.

In conclusion, take: MATH 349 Introduction to Complex Analysis, coming SPRING 2018 in a classroom near you!
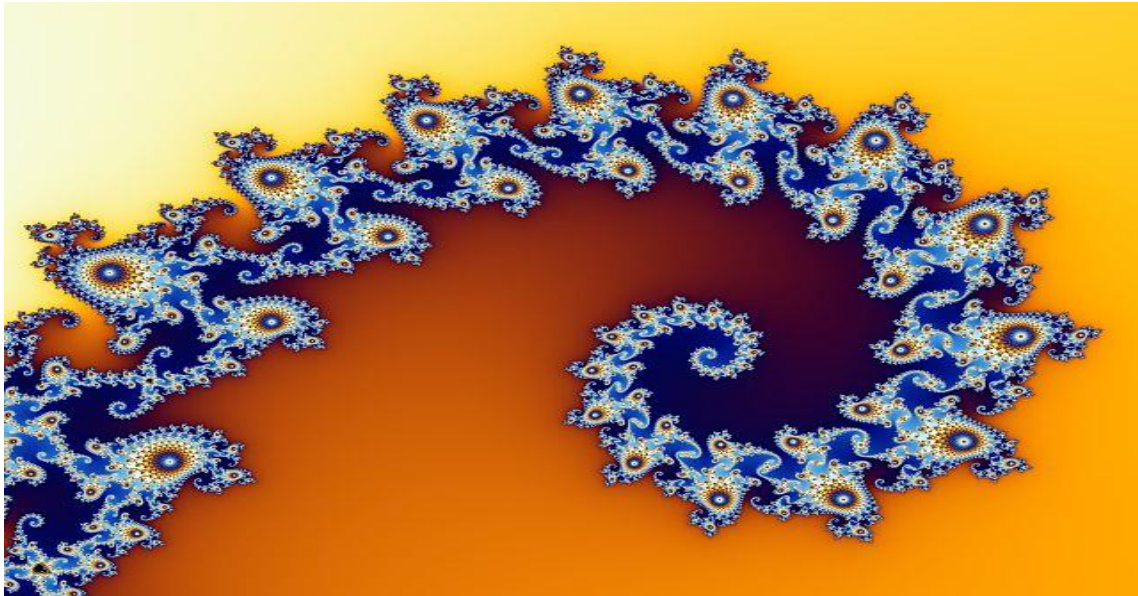
https://commons.wikimedia.org/wiki/File:Mandel_zoom_00_mandelbrot_set.jpg

- Partial view of the Mandelbrot set. Step 4 of a zoom sequence: The central endpoint of the "seahorse tail" is also a Misiurewicz point.
- Created by Wolfgang Beyer with the program *Ultra Fractal 3*.