Department of Mathematics
College of Science and Technology
Temple University

30 Year Anniversary of the

Emil Grosswald Lectures

Complex Dynamics and Elliptic Curves

We will present connections between recent research in dynamical systems and the classical theory of elliptic curves and rational points. On the dynamical side – specifically in the study of iteration of rational functions (Julia sets, bifurcations, the Mandelbrot set), but originating in the mathematical study of planetary motion – the first connections were observed about 100 years ago. On the arithmetic side, it was probably the 1960s when dynamical ideas were first used as tools to understand the arithmetic geometry of elliptic curves and higher-dimensional varieties. The goal is to provide examples of how these relationships developed and where they have brought us today.

The first talk is intended for a general audience.

Laura DeMarco
Northwestern University

Lecture 1:
September 23
4:00pm
SERC 110A

Lecture 2:
September 24
4:00pm
Wachman Hall 617

Lecture 3:
September 24
5:30pm
Wachman Hall 617