Spring 2015

Mathematical Sciences
DiPrima Lecture

On growth and form: biology, physics and mathematics

The range of shapes in the plant (and animal) world is "enough to drive even the sanest man mad", wrote Darwin. Motivated by qualitative and quantitative biological observations, I will show that there is a "method in the madness" - using examples of growth and form in tissues and organs such as the undulating fringes on a leaf, the looping of your gut, and the convolutions in your brain. In each case, we will see how a combination of biological and physical experiments, mathematical models and computations allow us to unravel the quantitative basis for the diversity and complexity of biological form, while creating new subjects of study in geometry, analysis and statistics.

Speaker: L. Mahadevan

(Harvard University)

Thursday, April 9, 2015

Time: 4:00 – 5:00 PM

Location: AE214

Refreshments: 3:30 – 4:00 PM, AE 4th Floor Lounge

Reception: 5:00-6:00 PM, AE 4th Floor Lounge

Rensselaer

Host: Don Schwendeman