

Aaron Hoffman '98

Assistant Professor of Mathematics
Olin College of Engineering



Phase planes, traveling waves and delay equations

ABSTRACT

In the first half of this talk I will introduce the idea of the phase plane and discuss a mathematical model of the pendulum. In the second half of this talk I will introduce the idea of spatial dynamics by describing the surprising connection between the pendulum and transport phenomenon in a general mathematical model of population ecology, nerve impulses, and materials science. In the third half of the talk I will discuss joint work with Ben Kennedy ('98) in which we used ideas from spatial dynamics to analyze a class of spatially- discrete models.

TUESDAY, OCTOBER 25, 2011 • TEA AT 4:15, TALK AT 4:30 • SCIENCE CENTER 199