1125-P5-2555 **Heather A Moon*** (hamoon@lcsc.edu), 500 8th Ave, Lewiston, ID 83501, **Thomas J Asaki** (tasaki@wsu.edu), PO BOX 641067, Pullman, WA 99164-1067, **Marie Snipes** (msnipes@kenyon.edu), 103 College Rd, Gambier, OH 43022, and **Chris Camfield** (camfield@hendrix.edu), 1600 Washington Ave, Conway, AR 72032. *Wave Propagation Inspiring Techniques in Differential Equations.*

In this talk, we will discuss a classroom module that we have created to inspire techniques in ODEs. Our module uses a data application to reinforce the general idea of iteratively constructing solutions to differential equations and to motivate the level set method for solving partial differential equations. The data application that we use in our module is Wave propagation: We wish to understand and predict wavefront propagation in a physical medium. We consider the common case where wavefront speed is a function of position in the medium only (not a function of the wave size, shape of the wavefront, nor any wavefront history). We consider a tsunami traveling across an ocean, the spread of a wildfire across a landscape and light traveling through a refractive optical system. In this talk, we will share an outline of our module and how it can be implemented in an ODE course. (Received September 20, 2016)