1023-M5-1637   **Nicholas A Dovidio*** (`nidovidio@davidson.edu`), PO Box 6076, Department of Mathematics, Davidson College, Davidson, NC 28035. *A Mathlet to Interactively Explore Ordinary Differential Equation Solvers.*

Typically when undergraduate students encounter a mathematics class they view the class as memorizing and applying formulas. This occurs since most mathematics tests focus purely on applying formulas to solve problems. This behavior does not promote deeper understanding of mathematical methods and is not an accurate representation of what mathematics becomes at the research level. The goal of this work is to create the experience of research for students studying differential equations. This is accomplished through a variety of Java applications that encourage students to derive numerical differential equation solvers. This project also helps students realize the importance of such algorithms by displaying a variety of real life applications that cannot be solved analytically. (Received September 26, 2006)