

1092-01-116

Adam E. Parker* (aparker@wittenberg.edu), Department of Math and Computer Science, Wittenberg University, P.O. Box 720, Springfield, OH 45501. *“New” techniques from primary sources in ordinary differential equations.*

The pedagogical value of using primary sources in teaching is well documented, especially for calculus courses. Extending this idea to an ordinary differential equations course is a natural next step. This talk will discuss how student projects centered around primary sources can lead to rediscovering lost techniques that are certainly novel for the students and probably the instructor as well. We will illustrate this with three examples: 1) How Bernoulli solved the “Bernoulli differential equation” in a surprising way not taught often anymore, 2) what Cauchy contributed in order to get his name attached to “Cauchy-Euler equations”, and 3) how D’Alembert solved systems of differential equations about 100 years before modern matrix techniques were available. (Received August 05, 2013)