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Jason Cantarella* (jason.cantarella@gmail.com), UGA Mathematics Department, Athens, GA 30602. *Taylor Turret Battle: An HTML5 video game teaching students to understand Taylor Approximation.*

Taylor Turret Battle is a small video game played on a browser under HTML5. Your student controls a small spaceship by turning and thrusting. A computer-controlled turret fires projectiles at the player. The goal is to survive as long as you can. The turret is aimed by an algorithm which uses Taylor series to predict the player's future position from their position, velocity, and acceleration at the time the turret fires.

One purpose of the game is to experiment with a familiar learning environment for students (gaming) which really depends on the computer. Students seem to get a very different understanding of the importance of making predictions with series approximations after interacting with the game, and they are forced to think deeply about Taylor series in order to figure out how to win.

The game is free, works in Safari, Firefox, and Chrome, and is available to your students (and you) at

<http://www.jasoncantarella.com/taylorturret>

In this talk, we'll demonstrate the game and discuss the impact of the game on students and their responses to their experiences with the game. If time permits, we'll also talk about integrating activities with the game into the WebWork system, and the development process. (Received June 06, 2013)