

1154-49-1902

Thomas J. Clark* (tom.clark@dordt.edu) and **Anil B. Venkatesh**
(avenkatesh@adelphi.edu). *Optimizing Flappy Bird Flight Paths*. Preliminary report.

We investigate several optimal path problems in various norms. Each problem corresponds to a formulation of the “Flappy Bird” video game where a player navigates a bird through a maze of pipes. Mathematically we aim to minimize the total acceleration required to navigate through a set of points for several interpretations of net acceleration. We present exact solutions to these various minimization problems as well as a numerical implementation that computes solutions via a convex optimization scheme. (Received September 16, 2019)