

1135-B5-2984 **Brett C Smith*** (brett.c.smith@yale.edu), 109 Church St., unit 302, New Haven, CT 06510,
and **James S Rolf**. *Improving Preparation for Calculus with Gaming*. Preliminary report.

Success in calculus depends on a strong understanding of both the equations and graphs that represent functions. We created a video game called *Cartes* to strengthen students' intuition for the relationship between these representations.

We will report on *Cartes*' impact on student motivation and learning in an integrated pre-calculus/calculus course. Students in this course engage in single- and multi-player gameplay both in- and outside of class. We will report on data from pre/post concept tests as well as pre/post surveys on student attitudes. In particular, we will look at how immediate feedback and peer instruction involved in gameplay impact motivation and learning. (Received September 26, 2017)