

1116-K1-110 **Timothy J Pennings*** (tpennings@davenport.edu), 6191 Kraft Avenue, S.E., Grand Rapids, MI 49512. *Mathematical Modeling: Dirac, Einstein, and Bargaining the Big Easy.*

We begin briefly with the same question which should begin a modeling class: “Why does mathematical modeling work?” This adds a bit of humility and mystery to a subject that is often devoid of it at the college level. Some notable quotes will show that the answer is deep and illusive. Failing to answer that, we successfully address the more practical question, “What are some features of a good modeling project?” Finally, we spend the bulk of the time becoming acquainted with a favorite modeling project which the author and his colleagues have used for years in calculus and ODE courses: Bargaining Ahead: Optimizing a Trip Upriver. (Received July 27, 2015)