

1106-E5-2630 **Phong Le*** (ple@niagara.edu), Dunleavy Hall Rm #333, Mathematics Department, Niagara University, NY 14109. *Using Science Fiction and Impossible Situations in Mathematical Modeling.*

Somehow, teaching students to model real world behavior using mathematics always seems to involve rabbits that never die, geometrically similar water bottles, an unusual availability of frictionless surfaces and are often set on a desert island. Instead we can use scenarios taken from works of fiction and creative-nonfiction in the hopes of improving engagement and promoting curiosity. In particular, novels such as Andy Weir's, *The Martian* and Randall Muroe's recent book of hypotheticals, *What if? Serious Scientific Answers to Absurd Hypothetical Scenarios*, provide entertaining and interesting applications of deep mathematical thinking and problem solving. In this talk we describe our experiences deriving content from these works as well as student reaction to these challenging, often open-ended situations. (Received September 16, 2014)