

Abstract Submitted  
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**Interstellar Travel** ADAM RABAYDA, LUKE KELLER, Ithaca College

— Interstellar space travel is a topic that is often dismissed as highly unlikely due to the vast distances involved and to considerable engineering and socioeconomic challenges. Some are left believing that it may be far from possible for us, as a species, to go anywhere beyond our solar system. We demonstrate not only the possibility of covering interstellar distances in decades or less, but also that interstellar travel is possible (in principle) with existing technology. For example: Using only special relativity and calculus, we calculated that an interstellar spacecraft could reach the Andromeda Galaxy (2.5 Million light-years from Earth) in just over 28 years at an acceleration of  $9.81 \frac{m}{s}$ , which would emulate Earth gravity. We also calculated that the energy required for interstellar space travel, often deemed impossible with current technology, is, in fact, possible through certain methods such as nuclear fusion.

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