

# Sailing Into Cosmic Destinations: The Big Book. Notes On The Mechanics And Thermodynamics Of Novel Relativistic Sail Space Craft. Volume 1.



This is the first book of a series notes on the subject of novel polymode relativistic propulsion methods. The author has many additional thoughts and formulations to express on this subject. It is hoped that the careful or even casual reader of this book will be interested in the series of books yet to be published. The contents of this book include explicit and detailed expressions along with simple abstracted functional notation. The long-form expressions include numerical analysis type computational algorithms from which computer programs can be easily derived by those skilled in current art code writing for physics simulations. Colored font is used to provide easier and speedy reference for folks having read the book more than one time who desire context in terms of where various topics are addressed. In addition, red font bold and unbold is used for emphasizing important material needed to correctly evaluate the complex formulas provided herein. Multiple propulsion methods may be applied in one spacecraft. Multi-modal propulsion can be very beneficial for craft meant to travel cosmic distances in space and forward in time. Multimode propulsion is likely needed for such lengthy journeys because of unpredictable and unsurvivable mass-energy distributions in the interstellar and intergalactic medium. The absolute and relative density distribution patterns and mass-energy fractions of fermionic and bosonic species as well as in the background electric, magnetic, and gravitational field energy densities might best be navigable through multi-mode propulsion methods and/or options. Such multimodality can include arbitrary, serial and/or parallel applications of two or more modes of propulsion.

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