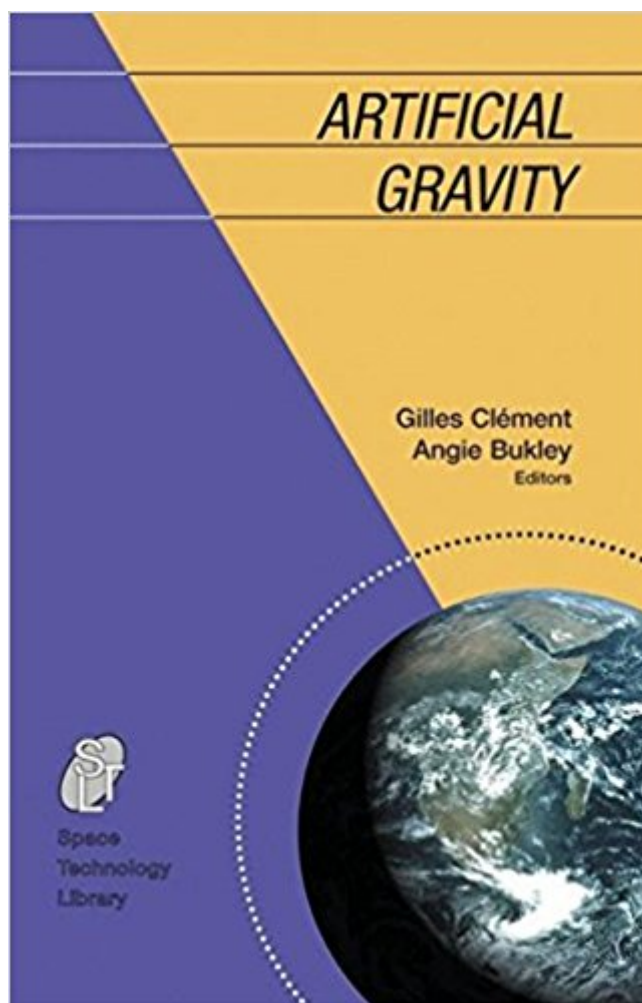


The book was found

Artificial Gravity (Space Technology Library)



Synopsis

This book reviews the principle and rationale for using artificial gravity during space missions, and describes the current options proposed, including a short-radius centrifuge contained within a spacecraft. Experts provide recommendations on the research needed to assess whether or not short-radius centrifuge workouts can help limit deconditioning of physiological systems. Many detailed illustrations are included.

Book Information

Series: Space Technology Library (Book 20)

Hardcover: 364 pages

Publisher: Springer; 2007 edition (July 6, 2007)

Language: English

ISBN-10: 0387707123

ISBN-13: 978-0321024015

Product Dimensions: 6.4 x 0.8 x 9.3 inches

Shipping Weight: 1.7 pounds (View shipping rates and policies)

Average Customer Review: Be the first to review this item

Best Sellers Rank: #532,254 in Books (See Top 100 in Books) #45 in [Books > Engineering & Transportation > Engineering > Aerospace > Propulsion Technology](#) #285 in [Books > Engineering & Transportation > Engineering > Aerospace > Astronautics & Space Flight](#) #300 in [Books > Textbooks > Engineering > Aeronautical Engineering](#)

Customer Reviews

From the reviews: "The book has grown out of the work of the ESA Topical Team on Artificial Gravity, which issued its Final Report in 2006. [It](#) provide a useful summary of artificial-gravity research. The extent to which microgravity affects different physiological systems differently, and the complex-manner in which they all interact, was a real eye-opener to me. [This](#) would greatly increase its value as a resource for those engaged in the planning of future human space exploration." (Ian Crawford, *The Observatory*, Vol. 128 (1203), 2008)

Protecting the health, safety, and performance of exploration-class mission crews against the physiological deconditioning resulting from long-term weightlessness during transit and long-term reduced gravity during surface operations will require effective, multi-system countermeasures. Artificial gravity, which would replace terrestrial gravity with inertial forces generated by rotating the

transit vehicle or by short-radius human centrifuge devices within the transit vehicle or surface habitat, has long been considered a potential solution. However, despite its attractiveness as an efficient, multi-system countermeasure and its potential for improving the environment and simplifying operational activities, much still needs to be learned regarding the human response to rotating environments before artificial gravity can be successfully implemented. This book reviews the principle and rationale for using artificial gravity during space missions, and describes the current options proposed, including a short-radius centrifuge contained within a spacecraft. In *Artificial Gravity*, experts provide recommendations on the research needed to assess whether or not short-radius centrifuge workouts can help limit deconditioning of physiological systems. "Aided by an exquisite group of experts, Gilles Clement and Angie Buckley have managed to put together THE new, comprehensive reference book on artificial gravity. This book will be an essential resource for students, scientists, and program planners alike." -Oliver Angerer, European Space Agency "Drs. Gilles Clement and Angie Buckley have provided a unique book that looks at the practicability of artificial gravity, and have invited respected experts in the space flight community to contribute to this discourse. Like the early 1960 studies of artificial gravity, their book charts the future, guiding both seasoned investigators and students with the tools necessary for understanding the complex problems of artificial gravity and the effect of that environment on biological systems." -Millard F. Reschke, NASA, The Johnson Space Center

[Download to continue reading...](#)

Artificial Gravity (Space Technology Library) Defining Gravity (Defining Gravity Series Book 1) Covariant Loop Quantum Gravity: An Elementary Introduction to Quantum Gravity and Spinfoam Theory (Cambridge Monographs on Mathematical Physics) Readings in Medical Artificial Intelligence. The First Decade (Addison-Wesley Series in Artificial Intelligence) Space Mission Analysis and Design (Space Technology Library) The Tradition of Technology: Landmarks of Western Technology in the Collections of the Library of Congress (Distributed for the Library of Congress) Women in Space: 23 Stories of First Flights, Scientific Missions, and Gravity-Breaking Adventures (Women of Action) Launch Vehicles Pocket Space Guide: Heritage of the Space Race (Pocket Space Guides) Understanding Space: An Introduction to Astronautics, 3rd Edition (Space Technology) LSC Understanding Space: An Introduction to Astronautics + Website (Space Technology Series) Robots and Artificial Intelligence (Technology Behind) The Technology of Artificial Lift Methods, Vol. 4: Production Optimization of Oil and Gas Wells by Nodal Systems Analysis Artificial Intelligence (Cutting-Edge Science and Technology) Blockchain: Step By Step Guide To Understanding The Blockchain Revolution And The Technology Behind It (Information

Technology, Blockchain For Beginners, Bitcoin, Blockchain Technology) Fintech: Simple and Easy Guide to Financial Technology (Fin Tech, Fintech Bitcoin, financial technology fintech, Fintech Innovation, Fintech Gold, ... technology, equity crowdfunding) (Volume 1) FINTECH: Simple and Easy Guide to Financial Technology (Fin Tech, Fintech Bitcoin, financial technology fintech, Fintech Innovation, Fintech Gold, Financial services technology, equity crowdfunding) A Journey into Gravity and Spacetime (Scientific American Library) That Hideous Strength: A Modern Fairy-Tale for Grown-Ups (Space-Cosmic-Ransom Trilogy, Book 3) (Library Edition) (Space Trilogy (Audio)) Perelandra (Space-Cosmic-Ransom Trilogy, Book 2) (Library Edition) (Space Trilogy (Audio)) Out of the Silent Planet (Space-Cosmic-Ransom Trilogy, Book 1) (Library Edition) (Space Trilogy (Audio))

[Contact Us](#)

[DMCA](#)

[Privacy](#)

[FAQ & Help](#)