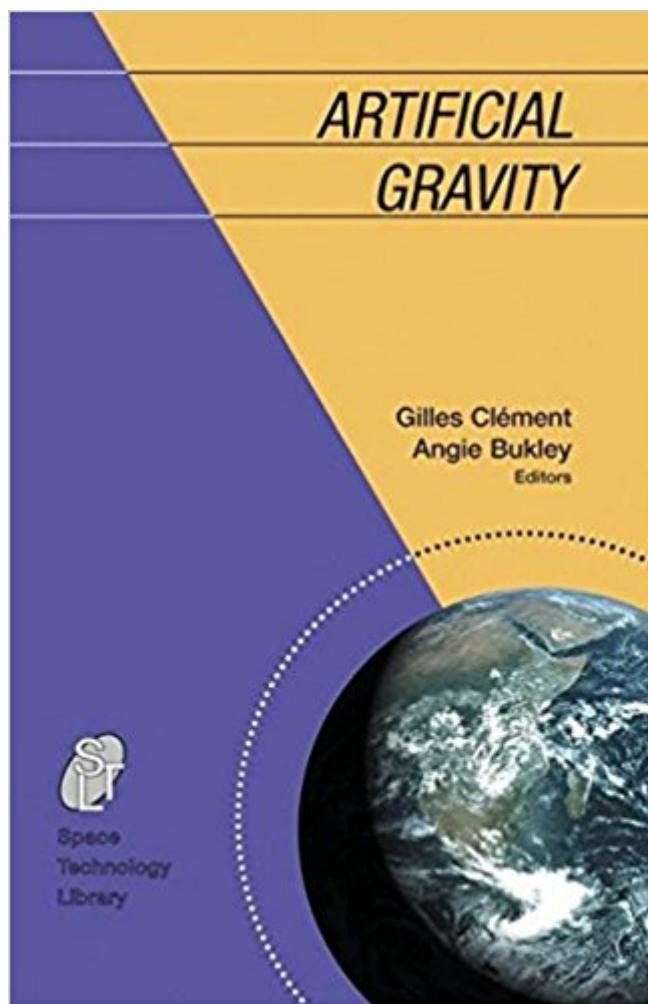**The book was found**

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

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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. Ã¢â ¬Â| 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. Ã¢â ¬Â| 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 Bukley 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 Bukley 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

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