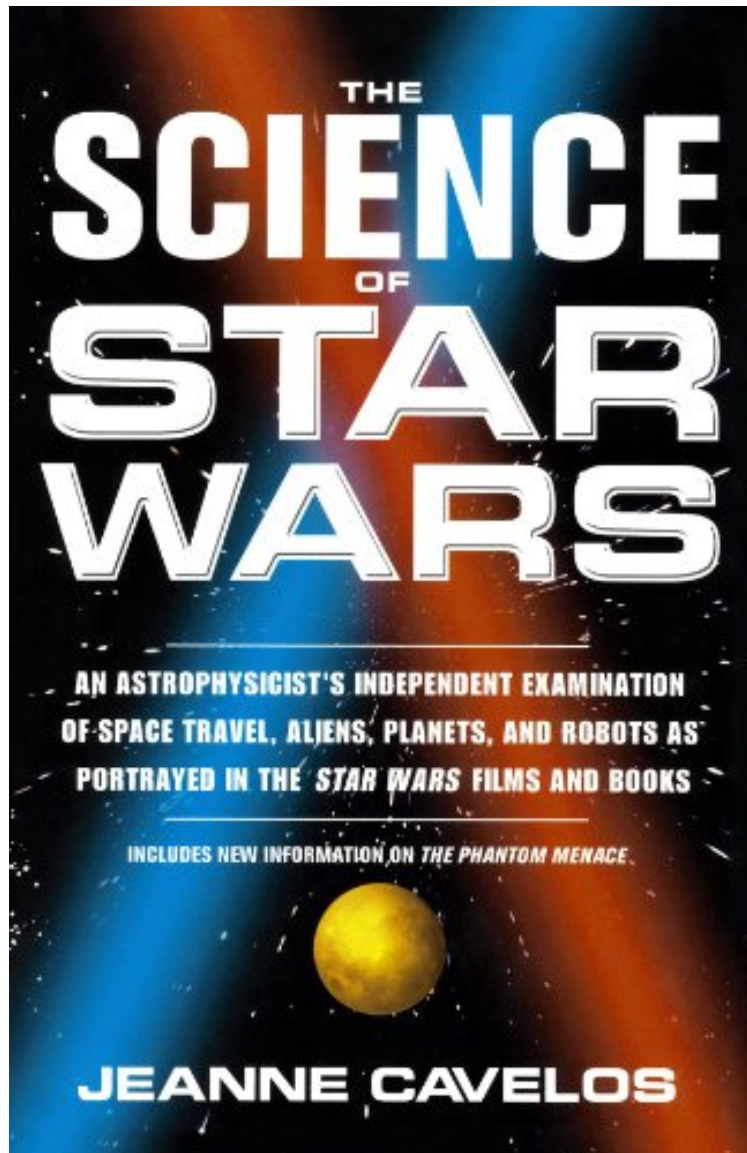


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The Science of Star Wars: An Astrophysicist's Independent Examination of Space Travel, Aliens, Planets, and Robots as Portrayed in the Star Wars Films and Books

Jeanne Cavelos

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Jeanne Cavelos : The Science of Star Wars: An Astrophysicist's Independent Examination of Space Travel, Aliens, Planets, and Robots as Portrayed in the Star Wars Films and Books before purchasing it in order to gage whether or not it would be worth my time, and all praised The Science of Star Wars: An Astrophysicist's Independent

Examination of Space Travel, Aliens, Planets, and Robots as Portrayed in the Star Wars Films and Books:

1 of 1 people found the following review helpful. So, HOW did the Millennium Falcon make the Kessel Run in less than 12 parsecs..? Here's your answer!By TomHunter1968Though Ms Cavelos' book has been out for quite some time, I still find myself revisiting it a couple times a year. For any fan of Star Wars, this book brings home some of the practical science used in the telling of the SW tales, but also looks ahead to how technology portrayed in the films might become reality in the future. She attempts to explain how light sabers might work, how people can remain standing on a spaceship no matter which angle of flight it is taking, and, importantly, resolves the Kessel Run "parsec" goof Lucas made in the cantina scene :) If you have an interest in science and science fiction, this book is a must-read. Cavelos deftly and with a considerable helping of good humor, explains how the fictions in SW might have actually worked, and how some, well, would likely remain fiction. In so doing, again, I find that her writing style coupled with her intelligent arguments are discussions I enjoy going back to from time to time. Pick up a copy of this book - you won't be disappointed.2 of 2 people found the following review helpful. This is a great book!By DerrickLThis book was a real joy to read. Any person that has a love for science or the Star Wars franchise and a hunger for learning more about them will love this book. The way Jeanne examines the possibility of our society becoming of that seen in the Star Wars films is fascinating. Those who have not seen any of the Star Wars films will be compelled to go watch them. And those who have lost the love for science or Star Wars films will feel it renewed. This book shows a whole new look into how the aliens of Star Wars came to be. It examines how one day the human race may have colonies on other worlds around the universe, and how we will be able to find the right planets for humans to thrive on. This book is great for people of all ages for the fact that it's very easy to read and is very likely to leave you satisfied and hungry for more. It is also a great book for teachers to apply in their classrooms. This book in no way will keep you bored. I recommend this book to anyone who enjoys to read.0 of 0 people found the following review helpful. Fascinating; thought provokingBy cody steeleSome of my friends know me to occasionally either directly quote Star Wars, or else refer to it somehow in a much more vague way. If I do this, I "Star Wars" you. But this book is another one of the better science books I have read, outside of my native forensic sciences. Of course all my friends love that I read an astrophysics formula used to explain the Force, and then there is all kinds of other interesting analysis of astrophysics in a galaxy far far away. Take this book slow, especially if you're new to physics, and maybe do your homework by watching the original Star Wars trilogy, so you'll be up to speed on all the references in this book. (It seems like this book was written before the newer Star Wars films came out)

Former NASA astrophysicist Jeanne Cavelos examines the scientific possibility of the fantastical world of Star Wars. She explains to non-technical readers how the course of science might soon intersect with such fantasies as interstellar travel, robots capable of thought and emotion, habitable alien planets, bizarre intelligent life forms, high-tech weapons and spacecraft, and advanced psychokinetic abilities. She makes complex physics concepts, like quantum mechanics, wormholes, and Einstein's theory of relativity both fascinating and easy to comprehend. The Science of Star Wars does for Star Wars what Lawrence Krauss's bestselling *The Physics of Star Trek* did for the Star Trek universe. Cavelos answers questions like: * How might spaceships like the Millennium Falcon make the exhilarating jump into hyperspace? * Could a single blast from the Death Star destroy an entire planet? * How close are we to creating robots that look and act like C-3PO and R2-D2? * Could light sabers possibly be built, and if so, how would they work? * Do Star Wars aliens look like "real" aliens might? * What kind of environment could spawn a Wookiee? * What would living on a desert planet like Tatooine be like? * Why does Darth Vader require an artificial respirator? * Can we access a "force" with our minds to move objects and communicate telepathically with each other?

.com Jeanne Cavelos says, "Star Wars fueled my interest in space exploration and the possibility of alien life," leading her to a career in astrophysics. While these movies have inspired her, she admits that may not have been their intention. In creating the part science fiction/part fantasy/part myth that is Star Wars, George Lucas did not seek to create a futuristic universe that agreed perfectly with our current understanding of science.... How realistic, how possible, is this galaxy far, far away? The answer when *A New Hope* first came out was "not at all." But a strange thing has happened in the years since Star Wars first came out. Science is beginning to catch up with George Lucas. Cavelos looks at Lucas's planets, aliens, droids, technology, and Force with both rationality and affection. The droids R2-D2 and C-3PO, among others, become more interesting and almost credible after her consideration. The element of Star Wars that is most true to science is the sense of wonder it calls forth, which has very little to do with how close it is to a possible future. Or, as Steve Grand, director of the Cyberlife Institute, said to Cavelos: "I never try to let scientific implausibility get in the way of a good story!" --Mary Ellen CurtinFrom Publishers WeeklyThe opening in May of the new Star Wars film has hardcore fans in a frenzy. Timed to release with *The Phantom Menace*, this book follows in the tradition of *The Physics of Star Trek* and Cavelos' own *The Science of the X-Files*. The author examines five major areas: planetary environments, aliens, droids, space ships and weapons, and the Force in sufficient detail to satisfy even knowledgeable fans. Take Luke's desert home world, Tatooine. When Star Wars first came out,

scientists doubted the existence of planets in other solar systems, but since 1995 several have been found. Could a planet form around a binary star? Yes, but due to gravitational forces only if the stars were very far apart or very close, so as Luke gazes out at his two suns setting, he sees an accurate portrayal of a binary system. Most of the Star Wars aliens fare equally well. The Wookies keen sense of smell, for example, would give them an alternative means of communication so that they might need to vocalize only with grunts and howls. Can the force be with you? Physicist David Bohm posited a quantum potential force that would interpenetrate and bind together everything in the universe, but only Yoda knows if we can direct it with our minds. Cavelos engaging style makes this book a treat, with no science background necessary. (May) FYI: The Science of the X-Files has been nominated for a 1998 Bram Stoker Award in the Nonfiction category. Copyright 1999 Reed Business Information, Inc. From School Library Journal YA- Cavelos, an astrophysicist, mathematician, writer, and teacher, examines the science behind George Lucas's popular series of movies, comparing his fictional universe with the universe as we currently understand it. She points out that in the two decades since the debut of Star Wars: A New Hope, science has come much closer to making Lucas's vision a reality. Rapid interstellar travel is theoretically possible. Extraterrestrial life is apparently more abundant than previously thought. Robots seem to need emotions to learn and interact effectively with humans. There may even be- dare we say it?-a Force. The writing is clear and geared toward readers with "no particular science background" although some is necessary. The author lightens the jargon with humor, and her examples for scientific principals and phenomena are apt. For example, Schrodinger's paradox is illustrated not by a cat in a box, but by Princess Leia in a cell. This book will appeal to the many fans of the films. Susan Salpini, Purcellville Library, VA Copyright 1999 Reed Business Information, Inc.