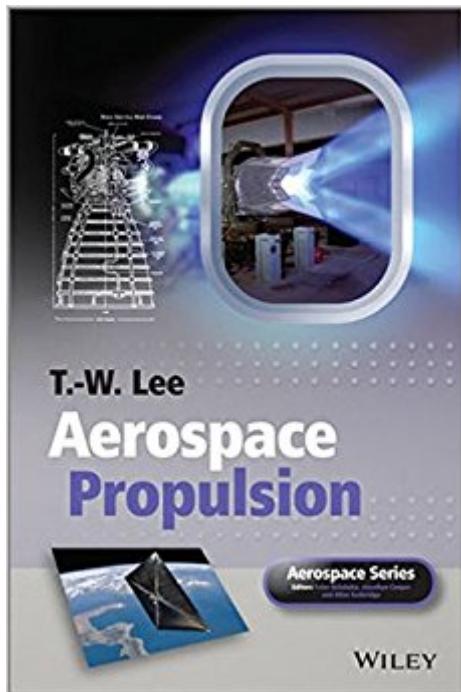


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# Aerospace Propulsion



## Synopsis

Aerospace propulsion devices embody some of the most advanced technologies, ranging from materials, fluid control, and heat transfer and combustion. In order to maximize the performance, sophisticated testing and computer simulation tools are developed and used. Aerospace Propulsion comprehensively covers the mechanics and thermal-fluid aspects of aerospace propulsion, starting from the fundamental principles, and covering applications to gas-turbine and space propulsion (rocket) systems. It presents modern analytical methods using MATLAB and other advanced software and includes essential elements of both gas-turbine and rocket propulsion systems. Gas turbine coverage includes thermodynamic analysis, turbine components, diffusers, compressors, turbines, nozzles, compressor-turbine matching, combustors and afterburners. Rocket coverage includes chemical rockets, electrical rockets, nuclear and solar sail. Key features: Both gas-turbine and rocket propulsion covered in a single volume Presents modern analytical methods and examples Combines fundamentals and applications, including space applications Accompanied by a website containing MATLAB examples, problem sets and solutions Aerospace Propulsion is a comprehensive textbook for senior undergraduate graduate and aerospace propulsion courses, and is also an excellent reference for researchers and practicing engineers working in this area.

## Book Information

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## Customer Reviews

Nevertheless this book covers the basics in a clear and easily accessible manner and would serve

as a valuable study aid and as a companion text to the number of excellent, more specialised textbooks in this area such as Gas Turbine Theory by Savaranamutto, Rogers, Cohen and Straznicky (Prentice Hall, 2008 Sixth edition) and Space Propulsion Analysis and Design edited by R. W. Humble et al. (McGraw-Hill Publishing Company, 1995). (The Aeronautical Journal, 1 June 2014)

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Gas-turbine coverage includes thermodynamic analysis, turbine components, diffusers, compressors, turbines, nozzles, compressor-turbine matching, combustors and afterburners.

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Accompanied by a website containing MATLAB® examples, problem sets and solutions

Aerospace Propulsion is a comprehensive textbook for senior undergraduate and graduate aerospace propulsion courses, and is also an excellent reference for researchers and practicing engineers working in this area.

Awesome book! If you are taking aerospace propulsion, don't bother to purchase this.

This is an interesting book with several useful information on aerospace propulsion. I have find an interesting introduction on combustion instabilities and burning rate analysis for rocket engines. However, the author try to cover gas turbine propulsion, chemical rocket propulsion and non-chemical propulsion in about 300 pages. Its is simply impossible to cover all these topics appropriately with a such short text. For example, the last chapter on non-chemical (electric) rocket propulsion try to explain electromagnetism and kinetic theory in only 20 pages. So the treatment of the topics is very superficial and you will not get a deep understanding of aerospace propulsion by reading this book. Furthermore, I think a student will have a lot of difficulties learning these topics

with this book. Also, this book seriously need more work and editing. Several plots are simply done on Matlab and several paragraphs are cut in half by tables, figures or example problems. Moreover, some figures seem to be done on paint (or something like that). For a 100\$ book, I expect a little more. It would be easy to improve the presentation of the book with a little more work. In an era of ebook (university library often have electronic version of textbooks) it is very irritating to read a book like this without any consideration for the reader. Finally, I think that this book has a lot of potential but I think we should wait until the third edition (this is first edition) before to have something worth to buy.

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