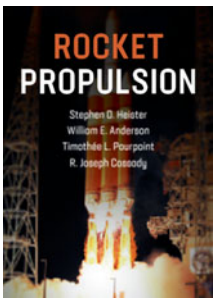
adhesive and adherends, i.e. so-called weak and kissing bonds (or tight disbands), which cannot be reliably observed using any existing NDI technique.

This is followed by chapter 8, where this challenge could have been further elaborated. However, chapter 8 will be especially value for European industries (both manufacturers and MROs) in the sense that it addresses honeycomb composite repair. Personally, I would wish to see more on existing challenges with aviation regulations for permit-to-fly and ongoing intense standardisation, especially from the bonded repair regulatory perspective, and referring to some CACRC documented regulations, CS25 and AMC20-29 specifications for repair materials and processes.

Dr Hamed Yazdani Nezhad, PhD, CEng IMechE, FHEA, Senior Composites Expert Associate Professor in Aerospace Structures, University of London



Rocket Propulsion

S. Heister *et al.*

Cambridge University Press, University Printing House, Shaftesbury Road, Cambridge CB2 8BS, UK. 2019. xiii; 574 pp. Illustrated. £54.99. ISBN 978-1-108-42227-7.

Rocket Propulsion by Heister *et al.* provides comprehensive coverage of the core aspects of chemical (solid and liquid) rocket motor design. The textbook also refers to unsteady analysis and its complexities and importance for safe system design. The text makes good use of relevant examples and case studies, which help to ground much of the theoretical analysis presented.

While this is primarily a textbook on chemical rocket propulsion systems, there is a brief chapter on electric propulsion (EP). This chapter gives a good overview of the types of EP systems and their basic operating principles. It would have been nice to see some more introductory material on basic methods for mission analysis for EP systems here, but as EP is not the main focus of the text, this omission is understandable.

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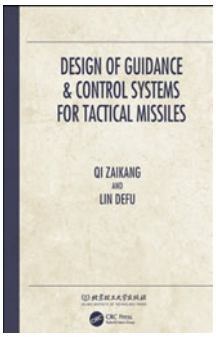
Additionally, it would have been nice to see some reference to cold gas propulsion systems, which are still a highly relevant method of propulsion for the space industry.

Throughout the book, there are comprehensive sets of example questions and references for further reading at the end of each chapter. Additionally, in the chapter on combustion and thermochemistry, the text refers to useful and openly available code for chemical equilibrium calculations. The book is completed with a good set of illustrations that clarify the more challenging concepts introduced in the text. While the units in the text are a mixture of imperial and metric, which may be confusing at first glance, this does not take away from the content and analysis methods covered. Finally, the appendices contain key details of the numerical analysis discussed in the main text and a good list of web resources from the authors' own site, including a solutions manual, and figures in PPT/ JPG format available from the publisher's site.

Overall, this is a very good senior undergraduate- or postgraduate-level textbook covering key aspects of rocket propulsion with a focus on thermochemical rocket motor design.

Dr Katharine Smith
MRAeS



Design of Guidance and Control Systems for Tactical Missiles

Q. Zaikang and L. Defu

CRC Press, Taylor & Francis Group, 6000 Broken Sound Parkway NW, Suite 300, Boca Raton, FL 33487-2742, USA. 2019. Distributed by Taylor & Francis Group, 2 Park Square, Milton Park, Abingdon OX14 4RN, UK. xiii; 239 pp. £111. (20% discount available to RAeS members via www.crcpress.com using AKQ07 promotion code). ISBN 978-0-367-26041-5.

This book is pitched as an introductory text to the design of guidance and control systems for tactical missiles, and in that respect, it does a pretty good job. Though not as comprehensive as Zarchan(1) for example, it is not intended to compete with books covering state-of-the-art guidance and control strategies, but rather to provide an overview of the missile systems and design processes that must be considered, culminating in an exploration of the ubiquitous proportional navigation guidance strategy. In this respect, the book is tailored more

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