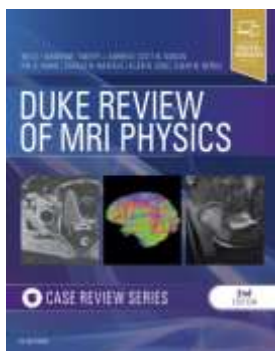


## Book shelf

### Duke Review of MRI Physics: Case Review Series, second edition

Mangrum, Amrhein, Duncan, Huang, Maxfield, Song, Merkle

#### REVIEW INFO



Publisher:  
Elsevier

ISBN:  
978-0-323-53038-5

RRP:  
£51.99

RAD Magazine price:  
£41.59\*

*\*Prices correct as at  
February 13, 2019 please  
call (01371) 812960 for  
current prices.*

#### REVIEW

*Book reviewed by Dr John Talbot, senior lecturer, Anglia Ruskin University, Cambridge.*

This is the second edition of this popular text and has updates throughout. The first point to note about the book is that it is aimed squarely at radiologists and registrars rather than radiographers. Despite the impression given by the title, this is not a book on pure MRI physics. Instead, the authors take a clinical, case-based approach to the subject. The underpinning physical principles of MRI are cleverly interwoven with the typical appearances shown on MRI images, starting with basic principles and progressively working towards more complex concepts. There is a certain amount of pre-existing knowledge assumed on the part of the reader, but most of the content will be accessible to anyone with a rudimentary understanding of MRI.

There are over 800 high quality MRI images presented, each offering the opportunity to highlight a particular underpinning principle. Topics covered include signal intensity, contrast mechanisms, spatial resolution, flow and common artefacts. Having taught radiologists for many years, I can see the significance of this approach. The theory is grounded in the practice of image interpretation, and this is something that radiologists consistently identify as being a primary learning need. As an example, changes in signal intensity employed in lesion characterisation is something that one might not normally expect to see covered in a “physics book”, yet an understanding of the underlying mechanisms will be of great value to radiologists when making decisions about protocol choice and optimisation.

Readability is excellent throughout and the tone of the writing is clear and understandable. The consistency between chapters is also surprisingly solid in view of the number of collaborators. Learning points are highlighted in the main body of the text, and there are occasional diagrams to highlight some of the physical concepts under scrutiny. Learning is further enhanced

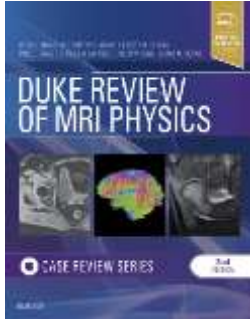
*review continues ...*

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### REVIEW

*... review continued*

by take-home messages and quizzes. The focus suggested by the book title is some-what lost in the quiz sections as many of these relate to diagnosis rather than the physics. My only other caveat is that some of the references provided for further reading seem a little out of date.

Despite these minor shortcomings, this is an ideal book for radiologists and reporting radiographers, pitched at an understandable level with a lot of useful relevant content.

Priced at around £50 for 247 pages, the book offers good value for money. Importantly, if eReader-enthusiasts are intending to purchase an electronic version of the book, be aware that the paperback edition already includes a link to a free “enhanced” digital version. The code is accessed via a scratch-panel inside the front cover.

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