



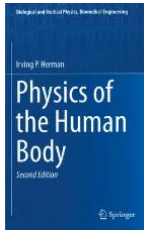
RESOURCES FOR THE  
MASTER IN MEDICAL  
PHYSICS

June 2018



## Biology, Anatomy and Physiology

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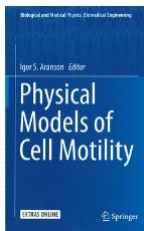


### Physics of the Human Body

Irving P. Herman

2<sup>nd</sup> edition 2016

531.3 HER 2<sup>nd</sup> ed.



### Physical Models of Cell Motility

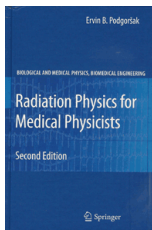
Igor S. Aranson, editor

2016

576 PHY

## Radiation Physics

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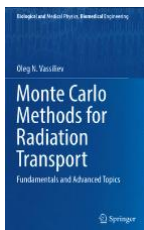


### Radiation Physics for Medical Physicists

2<sup>nd</sup> edition 2010

Ervin B. Podgoršak

53:61 POD

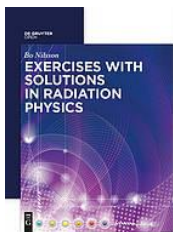


### Monte Carlo Methods for Radiation Transport: Fundamentals and Advanced Topics

2017

Oleg N. Vassiliev

53:61 VAS



### Exercises with Solutions in Radiation Physics

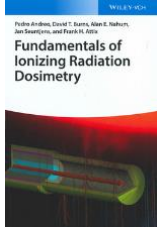
2015

Bo Nilsson



## Radiation Dosimetry

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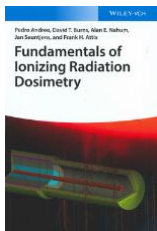


### Fundamentals of Ionizing Radiation Dosimetry

2017

Pedro Andreo, David T. Burns, Alan E. Nahum, Jan Seuntjens, and Frank H. Attix

539.12.08:61 FUN

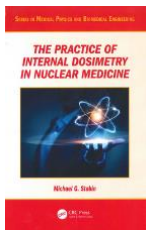


### Fundamentals of Ionizing Radiation Dosimetry: Solutions to Exercises

2017

Pedro Andreo, David T. Burns, Alan E. Nahum and Jan Seuntjens

539.12.08:61 FUN/SM

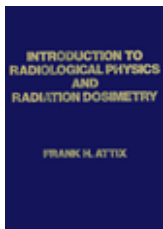


### The Practice of Internal Dosimetry in Nuclear Medicine

2017

Michael G. Stabin

539.12.08:61 STA



### Introduction to Radiological Physics and Radiation Dosimetry

1986

Frank Herbert Attix

53:61 ATT



### Absorbed Dose Determination in External Beam Radiotherapy

2001

IAEA Technical Reports Series n° 398



### Calibration of Reference Dosimeters for External Beam Radiotherapy

2009

IAEA Technical Reports Series n° 469





## Dosimetry in Diagnostic Radiology

2007

IAEA Technical Reports Series n° 457



## Radiation Dosimetry, vol. 1-3

2<sup>nd</sup> edition 1966-1969

F. H. Attix et al., editors

539.12.08:61 RAD



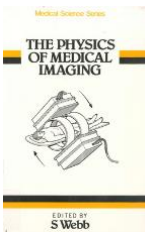
## Measurement Uncertainty

2008

IAEA TECDOC 1585

## Fundamentals of Medical Imaging

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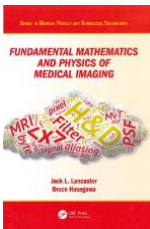


## The Physics of Medical Imaging

1988

Steve Webb, editor

53:61 PHY

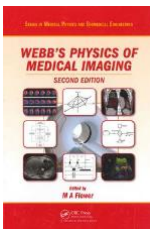


## Fundamental Mathematics and Physics of Medical Imaging

2017

Jack L. Lancaster, Bruce Hasegawa

53:61 LAN

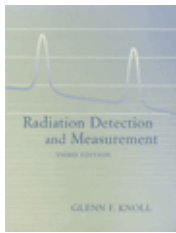


## Webb's Physics of Medical Imaging

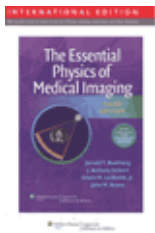
2<sup>nd</sup> edition 2012

Steve Webb, Maggie A. Flower

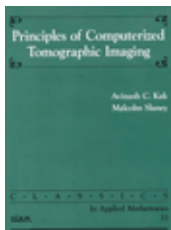
53:61 PHY 2<sup>nd</sup> ed.



Radiation Detection and Measurement  
3<sup>rd</sup> edition 2000  
Glenn F. Knoll  
539.1.074 KNO



The Essential Physics of Medical Imaging  
3<sup>rd</sup> rev. edition 2012  
Jerrold T. Bushberg et al.  
53:61 ESS



Principles of Computerized Tomographic Imaging  
2001  
Avinash C. Kak, Malcolm Slaney  
53:61 KAK



The Fourier Transform and its Applications  
2<sup>nd</sup> rev. edition 1986  
Ronald N. Bracewell  
517.44 BRA



The Physics of Clinical MR Taught Through Images  
2014  
Val M. Runge et. al.  
53:61 PHY

## Physics of Detectors

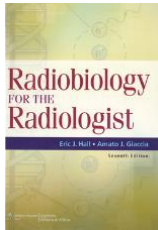
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Particle Detectors  
2<sup>nd</sup> edition 2008  
Claus Grupen, Boris Shwartz  
539.1.074 GRU



## Radiobiology

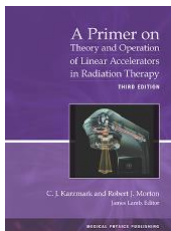


### Radiobiology for the radiologist

7<sup>th</sup> edition 2012

Eric J. Hall, Amato J. Giaccia

615.849 HAL

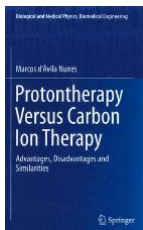


### A Primer on Theory and Operation of Linear Accelerators in Radiation Therapy

3<sup>rd</sup> edition 2018

C. J. Karzmark and Robert J. Morton ; edited by James Lamb

53:61 KAR 3rd ed.

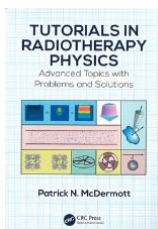


### Protontherapy Versus Carbon Ion Therapy: Advantages, Disadvantages and Similarities

2015

Marcos d'Avila Nunes

53:61 NUN

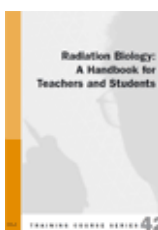


### Tutorials in Radiotherapy Physics: Advanced Topics with Problems and Solutions

2016

Patrick N. McDermott

615.849 MAC



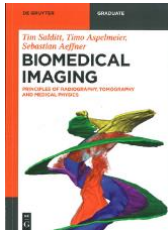
### Radiation Biology: a Handbook for Teachers and Students

2010

IAEA Training Course Series n° 42

## Physics of X-Ray, US and MRI Imaging

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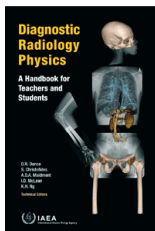


### Biomedical Imaging: Principles of Radiography, Tomography and Medical Physics

2017

Tim Salditt, Timo Aspelmeier, Sebastian Aeffner

53:61 SAL



### Diagnostic Radiology Physics

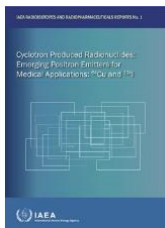
2014

D.R. Dance et al.

53:61 DIA

## Physics of Nuclear Medicine

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### Cyclotron Produced Radionuclides: Emerging Positron Emitters for Medical Applications: $^{64}\text{Cu}$ and $^{124}\text{I}$

2016

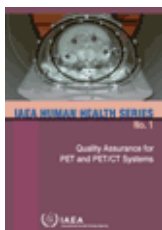


### Nuclear Medicine Physics: A Handbook for Teachers & Students

2014

D.L. Bailey, J.L. Humm, A. Todd-Pokropek, A. van Aswegen, technical editors

53:61 NUC



### Quality Assurance for PET and PET/CT Systems

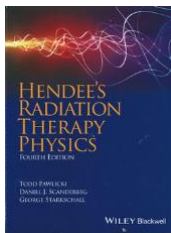
2009



Quality Assurance for SPECT Systems  
2009

## Physics of Radiation Oncology

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Hendee's Radiation Therapy Physics  
4<sup>th</sup> edition 2016  
Todd Pawlicki, Daniel J. Scanderbeg, George Starkschall  
615.849 HEN 4th ed.

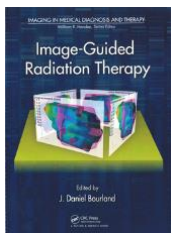


Image-Guided Radiation Therapy  
2012  
J. Daniel Bourland, editor  
615.849 IMA



Radiation Oncology Physics: A Handbook for Teachers & Students  
2005  
E.B. Podgorsak  
615.849 RAD



Handbook of Radiotherapy Physics  
2007  
P. Mayles, A. Nahum, J.C. Rosenwald  
615.849 HAN



Intensity-Modulated Radiation Therapy  
2001  
S. Webb  
615.849 WEB





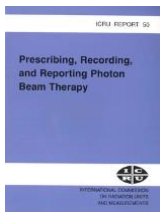
Transition from 2-D Radiotherapy to 3-D Conformal and Intensity Modulated Radiotherapy  
2008



Calibration of Photon and Beta Ray Sources Used in Brachytherapy  
2002



Quality Assurance for Radioactivity Measurement in Nuclear Medicine  
2006



Prescribing, Recording, and Reporting Photon Beam Therapy  
1993  
539.12.08:61 ICR Rep.50



Prescribing, Recording, and Reporting Photon-Beam Intensity-Modulated Radiation Therapy (IMRT)  
2010  
539.12.08:61 ICR Rep.83



Criteria for Acceptability of Medical Radiological Equipment Used in Diagnostic Radiology, Nuclear Medicine and Radiotherapy  
2012



## Quality Assurance of Medical Accelerators

AAPM Task Group 142 report  
Medical Physics vol. 36 issue 9, September 2009



## Accelerator Beam Data Commissioning Equipment and Procedures

AAPM Report of the TG-106 of the Therapy Physics Committee  
Medical Physics vol. 35 issue 9, September 2008



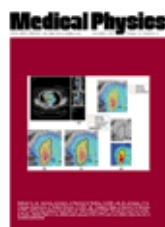
## Basic Applications of Multileaf Collimators

2001



## Current Status and Recommendations for Clinical Implementation

AAPM Report of the Task Group 186  
Medical Physics vol. 39 issue 10, October 2012



## Issues Associated with Clinical Implementation of Monte Carlo-Based Photon and Electron External Beam Treatment Planning

AAPM Task Group No. 105  
Medical Physics vol. 34 issue 12, December 2007



**Medical  
Physics**

## Quality Assurance for Clinical Radiotherapy Treatment Planning

AAPM Radiation Therapy Committee Task Group 53

Medical Physics vol. 25 issue 10, October 1998

**Medical  
Physics**

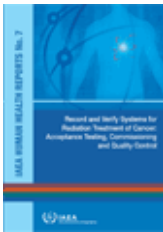
## A Dosimetric Uncertainty Analysis for Photon-Emitting Brachytherapy Sources

Report of AAPM Task Group No. 138 and GEC-ESTRO

Medical Physics vol. 38 issue 2, February 2011

## Information Technology in Medicine

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## Record and Verify Systems for Radiation Treatment of Cancer

2013

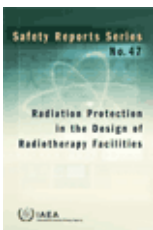
## Radiation Protection

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## Radiation Protection and Safety of Radiation Sources International Basic Safety Standards

2014



## Radiation Protection in the Design of Radiotherapy Facilities

2006



## Structural Shielding Design for Medical X-Ray Imaging Facilities

2004

539.12.08:61 NCR Rep.147



Assessment of Occupational Exposure Due to External Sources of Radiation  
1999



Assessment of Occupational Exposure Due to Intakes of Radionuclides  
1999



The Design of Diagnostic Medical Facilities where Ionising Radiation is used  
2009