

years of experience teaching medical physics to radiation oncology residents and by studying the guidelines of professional board exams, which are used to assess role-specific knowledge of medical physics. Orton is a professor emeritus at Wayne State University in Detroit, Michigan, and McDermott is a medical physicist at Beaumont Hospital in Royal Oak, Michigan, a teaching hospital for Wayne State's medical school. In writing their book, the authors compiled material from a medical physics course that had been modified over time to help residents prepare for their exams. To that end, the authors include board-approved guidelines for the material covered on the radiation oncology and radiation-therapy technology exams and point the reader to places where that material is discussed in the book; the medical dosimetry certification board declined to have its outline included.

Starting with topics that most medical physics texts skip over, the first chapter includes the basic, relevant mathematics, including exponents, logarithms, geometry, and trigonometry. In the second chapter, the authors review basic physics concepts such as mechanics, electricity and magnetism, relativity, and atomic structure. The coverage in the heart of the book is similar to Faiz Khan's *The Physics of Radiation Therapy* (Lippincott Williams & Wilkins, 2010) but with varying levels of thoroughness. The book ignores the general "dose determination protocol" (TG-21) of the American Association of Physicists in Medicine but presents AAPM's "clinical dosimetry" protocol (TG-51), with a step-by-step example of the absolute calibration procedure. *The Physics and Technology of Radiation Therapy* devotes an entire chapter to monitor unit calculations and is more thorough than Khan's book in discussing dose volume histograms. Each chapter concludes with a summary containing all the important points and rules of thumb (there are many), and a section of problem sets with selected answers.

The topics covered—and not covered—in *The Physics and Technology of Radiation Therapy* reveal the authors' intent to emphasize the information that physicians, dosimetrists, and therapists need to know about medical physics. It is an excellent book for any radiation oncology resident, medical dosimetrist, or radiation therapist looking to master concepts in medical physics.

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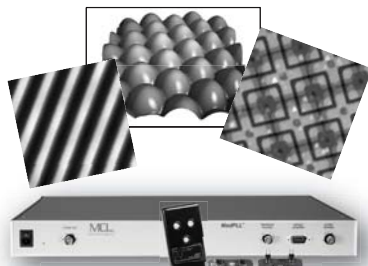


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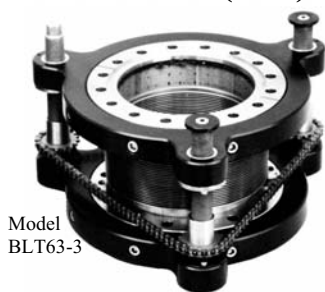


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