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Book Review: Electronic Imaging in Astronomy: Detectors and Instrumentation 2nd ed.

T. D. Oswalt
Florida Institute of Technology, oswalt1@erau.edu

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Electronic imaging in astronomy : detectors and instrumentation 2nd ed

McLean, Ian S. Springer/Praxis, 2008
552p, 9783540765820 $99.00
LC Call Number: QB51

No other invention (since the telescope itself) has revolutionized the science of astronomy quite so much as the electronic detector. In this new edition (1st ed., 1997), McLean (Univ. of California, Los Angeles) provides an excellent primer for those with a technical interest in these amazing devices. More than that, the book is a compendium of astronomical methods and instrumentation. Early chapters give a consistently solid descriptive background, including the history of telescopes and related instrumentation, optics, the limitations imposed by the atmosphere, and other sources of noise. In keeping with the title, the major portion of the book focuses on electronic detector design, construction, and applications. Key mathematical principles supplement the discussion as needed. The later chapters include an excellent review of current astronomical projects and surveys that use electronic detectors, and explore where the technology is likely to take astronomical research in the coming decade. McLean's book is not intended to be a "how to build it" reference, but it would be an excellent college-level resource. In fact, it should be on the shelf of anyone who wants a firm technical background in astronomical methods and instrumentation.

Summing Up: Highly recommended. Upper-division undergraduate through professional collections.

Reviewer: T. D. Oswalt, Florida Institute of Technology
Recommendation: Highly recommended
Readership Level: Upper-division Undergraduates, Graduate Students, Researchers/Faculty, Professionals/Practitioners
Interdisciplinary Subjects:
Subject: Science & Technology - Astronautics & Astronomy
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