Spectroscopy allows the precise study of astronomical objects and phenomena. Bridging the gap between physics and astronomy, this is the first integrated graduate-level textbook on atomic astrophysics. It covers the basics of atomic physics and astrophysics, including state-of-the-art research applications, methods and tools.

The content is evenly balanced between the physical foundations of spectroscopy and their applications to astronomical objects and cosmology. An undergraduate knowledge of physics is assumed, and relevant basic material is summarized at the beginning of each chapter.

The material is completely self-contained and contains sufficient background information for self-study. Advanced users will find it useful for spectroscopic studies. A website hosted by the authors contains updates, corrections, exercises and solutions, and news items from physics and astronomy related to spectroscopy. A link to this can be found at www.cambridge.org/9780521825368.

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