

PREFACE

This book follows closely a lecture course I gave entitled ‘Astronomical Spectroscopy’ to third-year undergraduate students at University College London between 1998 and 2003. The students who attended had done a prior introductory course on Quantum Mechanics which covered the hydrogen atom but no further atomic physics or spectroscopy. A similar level of prior knowledge is assumed in the current work.

There are many people whose help have been essential for the completion of this book. First I must thank Bill Somerville who inaugurated the course Astronomical Spectroscopy and taught it for two years before me. He selflessly shared his lecture notes and other materials with me. I would like to thank Ceinwen Sanderson for turning my hand-scrawled lecture notes into L^AT_EX, and my colleagues Tony Lynas-Gray, Bill Somerville, Peter Storey and Jeremy Yates for their extensive comments on the draft of the book. I owe a debt of gratitude to my graduate students Bob Barber and Natasha Doss who checked all the problems and found many errors. I thank all of them for the corrections; any errors that remain are all mine.

I must also thank the students who attended my Astronomical Spectroscopy course. It was great fun to teach, not least because the latest developments in astrophysics often fed straight into the lectures. Particular thanks are due to the class of 2003 who made a number of helpful comments and suggestions on the contents of the book.

A book on spectroscopy thrives on good illustrations and I have shamelessly plundered the literature and other sources for spectra to illustrate this one. I must thank Xiaowei Liu for help with digitising many of the published spectra, my student Iryna Rozum, my son Matthew, and especially David Rage for their help with the other illustrations.

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Finally I must acknowledge the UCL astronomers of the past and present who have answered my many questions on astrophysics with a patience their frequent stupidity probably did not deserve. Particularly high on this list are Pete Storey and Mike Barlow, but the rest of the varied lunch crew should not be forgotten. Without you my knowledge of things astronomical would be the same as it was the day I arrived at UCL — nothing.

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