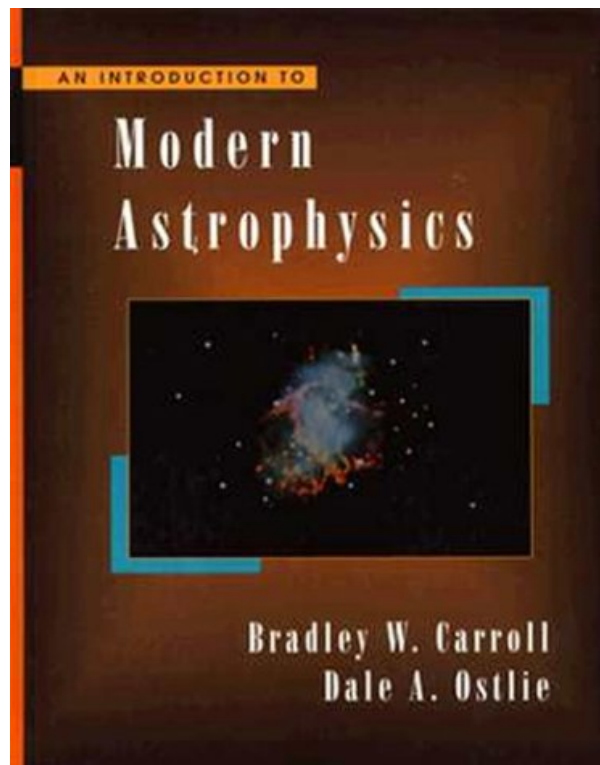
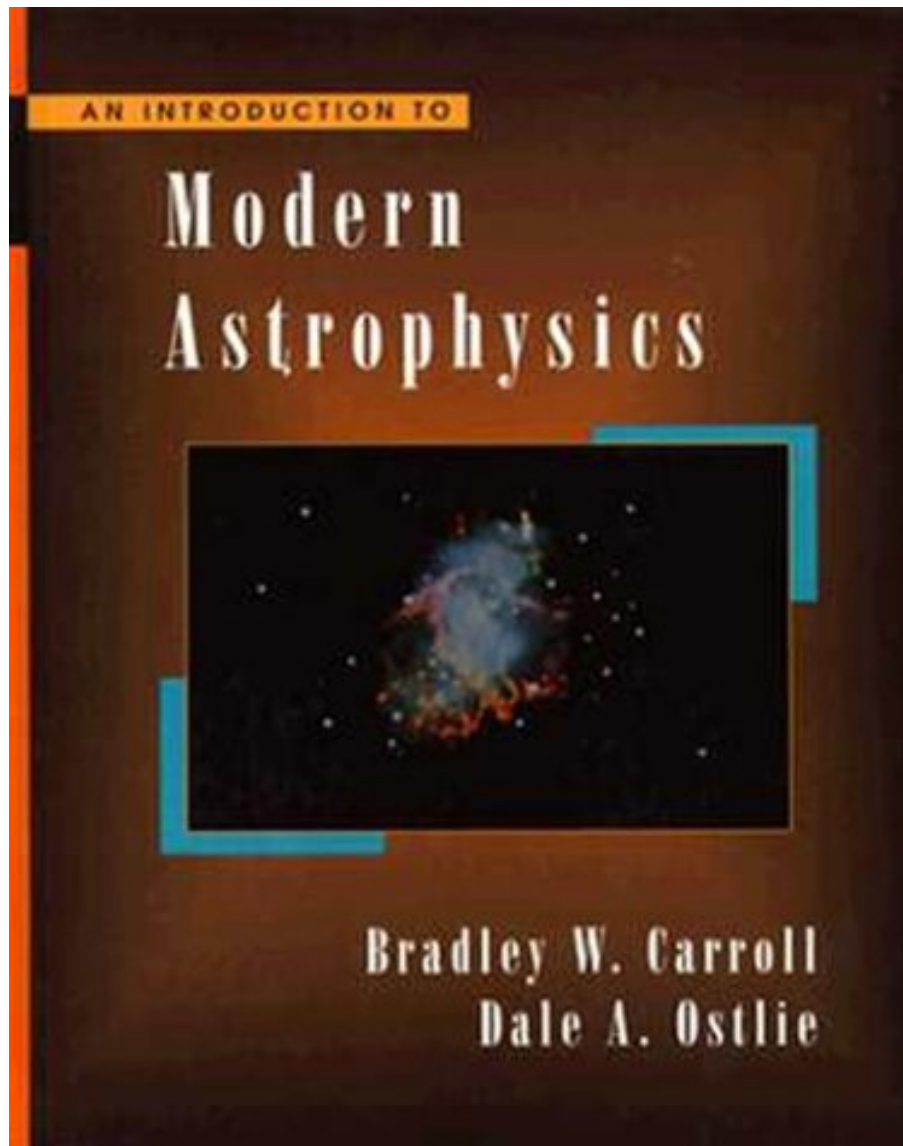


**AN INTRODUCTION TO MODERN
ASTROPHYSICS BY BRADLEY W.
CARROLL, DALE A. OSTLIE**



**DOWNLOAD EBOOK : AN INTRODUCTION TO MODERN ASTROPHYSICS BY
BRADLEY W. CARROLL, DALE A. OSTLIE PDF**





Click link bellow and free register to download ebook:

AN INTRODUCTION TO MODERN ASTROPHYSICS BY BRADLEY W. CARROLL, DALE A. OSTLIE

[DOWNLOAD FROM OUR ONLINE LIBRARY](#)

AN INTRODUCTION TO MODERN ASTROPHYSICS BY BRADLEY W. CARROLL, DALE A. OSTLIE PDF

The presented book *An Introduction To Modern Astrophysics* By Bradley W. Carroll, Dale A. Ostlie our company offer below is not kind of common book. You understand, checking out currently doesn't mean to take care of the printed book *An Introduction To Modern Astrophysics* By Bradley W. Carroll, Dale A. Ostlie in your hand. You can get the soft documents of *An Introduction To Modern Astrophysics* By Bradley W. Carroll, Dale A. Ostlie in your gadget. Well, we suggest that guide that we extend is the soft file of the book *An Introduction To Modern Astrophysics* By Bradley W. Carroll, Dale A. Ostlie The content and all things are same. The distinction is only the types of the book *An Introduction To Modern Astrophysics* By Bradley W. Carroll, Dale A. Ostlie, whereas, this problem will exactly be profitable.

About the Author

Bradley Carroll received his B.A. in Mathematics and a Secondary Teaching Credential from the University of California, Irvine, his M.S. in Physics from the University of Colorado, Boulder and his Ph.D. Astrophysics from the University of Colorado, Boulder.

Brad's lifelong fascination with astronomy, combined with a happy naivete concerning what lay ahead, led him to graduate school at CU Boulder. His thesis, supervised by Carl Hansen and John Cox, was a study of the effect of rotation on pulsating stars. Brad then headed east to work as a postdoc with Hugh Van Horn at the University of Rochester, where he carried out research on the oscillations of accretion disks and neutron stars. At both CU Boulder and the U of R, he learned the virtues of making simple models of complex astrophysical systems. .

Four years later, as the postdoc came to an end, Brad was lucky to find a teaching position in the Physics Department at Weber State University, and doubly lucky that Dale Ostlie was there. It is rare to find two experts in Stellar pulsation in the same institution and department, especially when their outlooks are congenial. .

Brad truly enjoys teaching which gives him the chance to share the wonders of the physical world with his students. Such a background served him well (especially his naivete about what lay ahead) when he and Dale decided to write *An Introduction to Modern Astrophysics*. Now that the book and solutions manual, are completed, Brad once again has the time to enjoy traveling, camping, and fishing.

Dale A. Ostlie's long-time interest in astronomy began with his childhood fascination in the space program, including vivid recollections of watching the Apollo missions with his family. His interest in teaching was born from his experiences as a student, being fortunate to have had excellent instructors and mentors in high school, college, and graduate school. During graduate school, Dale had the opportunity to spend a significant period of time working with Dr. Arthur N. Cox and the theoretical astrophysics group at Los Alamos National Laboratory. While at Los Alamos, Dale was introduced to great number of exciting and challenging

problems in astrophysics, which spurred his interest in developing a broad exposure to the discipline.

After completing his graduate thesis on Mira variable stars, and after a two-year teaching position at Bates College in Maine, Dale accepted a teaching position at Weber State University. With WSU nestled up against the Wasatch mountains of Utah, Dale is able to indulge his addictions to skiing, hiking, camping, and mountain biking. One year after Dale arrived at Weber State, Brad Carroll was hired, and their partnership in stellar pulsation studies and text-book writing was born. Sharing many of the same pedagogical views, as well as a dedication to producing the best possible text, Brad and Dale worked for six years to write *An Introduction to Modern Stellar Astrophysics* and *An Introduction to Modern Astrophysics*, and another year to produce the *Instructor's Solutions Manual*. Work related to the texts continues today with the maintenance of a collection of web pages associated with the books, including discussions of new discoveries since the publication of the texts in 1996.

AN INTRODUCTION TO MODERN ASTROPHYSICS BY BRADLEY W. CARROLL, DALE A. OSTLIE PDF

[Download: AN INTRODUCTION TO MODERN ASTROPHYSICS BY BRADLEY W. CARROLL,
DALE A. OSTLIE PDF](#)

Some individuals may be laughing when looking at you reviewing **An Introduction To Modern Astrophysics By Bradley W. Carroll, Dale A. Ostlie** in your downtime. Some might be appreciated of you. And some might really want be like you who have reading pastime. What concerning your own feel? Have you felt right? Reading An Introduction To Modern Astrophysics By Bradley W. Carroll, Dale A. Ostlie is a need and also a pastime simultaneously. This problem is the on that particular will certainly make you feel that you have to review. If you recognize are trying to find the book qualified An Introduction To Modern Astrophysics By Bradley W. Carroll, Dale A. Ostlie as the selection of reading, you can find here.

This publication *An Introduction To Modern Astrophysics By Bradley W. Carroll, Dale A. Ostlie* deals you far better of life that can develop the top quality of the life better. This An Introduction To Modern Astrophysics By Bradley W. Carroll, Dale A. Ostlie is what the people currently require. You are below as well as you may be precise and certain to obtain this publication An Introduction To Modern Astrophysics By Bradley W. Carroll, Dale A. Ostlie Never doubt to obtain it even this is just a book. You could get this publication An Introduction To Modern Astrophysics By Bradley W. Carroll, Dale A. Ostlie as one of your collections. But, not the compilation to display in your shelves. This is a valuable book to be reading compilation.

How is making certain that this An Introduction To Modern Astrophysics By Bradley W. Carroll, Dale A. Ostlie will not displayed in your shelves? This is a soft data publication An Introduction To Modern Astrophysics By Bradley W. Carroll, Dale A. Ostlie, so you could download An Introduction To Modern Astrophysics By Bradley W. Carroll, Dale A. Ostlie by buying to get the soft file. It will certainly ease you to review it every single time you require. When you really feel careless to relocate the published book from home to workplace to some location, this soft data will certainly alleviate you not to do that. Due to the fact that you could just conserve the information in your computer hardware and gizmo. So, it allows you review it almost everywhere you have readiness to check out [An Introduction To Modern Astrophysics By Bradley W. Carroll, Dale A. Ostlie](#)

AN INTRODUCTION TO MODERN ASTROPHYSICS BY BRADLEY W. CARROLL, DALE A. OSTLIE PDF

This exciting text opens the entire field of modern astrophysics to the reader by using only the basic tools of physics. Designed for the junior-level astrophysics course, each topic is approached in the context of the major unresolved questions in astrophysics. The core chapters have been designed for a course in stellar structure and evolution, while the extended chapters provide additional coverage of the solar system, galactic structure, dynamics, evolution, and cosmology.

- Sales Rank: #132993 in Books
- Published on: 1995-12-11
- Original language: English
- Number of items: 1
- Dimensions: 9.22" h x 2.31" w x 7.36" l, .0 pounds
- Binding: Hardcover
- 1326 pages

Features

- Cheapest price because it has some writing on a few pages.

About the Author

Bradley Carroll received his B.A. in Mathematics and a Secondary Teaching Credential from the University of California, Irvine, his M.S. in Physics from the University of Colorado, Boulder and his Ph.D. Astrophysics from the University of Colorado, Boulder.

Brad's lifelong fascination with astronomy, combined with a happy naivete concerning what lay ahead, led him to graduate school at CU Boulder. His thesis, supervised by Carl Hansen and John Cox, was a study of the effect of rotation on pulsating stars. Brad then headed east to work as a postdoc with Hugh Van Horn at the University of Rochester, where he carried out research on the oscillations of accretion disks and neutron stars. At both CU Boulder and the U of R, he learned the virtues of making simple models of complex astrophysical systems. .

Four years later, as the postdoc came to an end, Brad was lucky to find a teaching position in the Physics Department at Weber State University, and doubly lucky that Dale Ostlie was there. It is rare to find two experts in Stellar pulsation in the same institution and department, especially when their outlooks are congenial. .

Brad truly enjoys teaching which gives him the chance to share the wonders of the physical world with his students. Such a background served him well (especially his naivete about what lay ahead) when he and Dale decided to write An Introduction to Modern Astrophysics. Now that the book and solutions manual, are completed, Brad once again has the time to enjoy traveling, camping, and fishing.

Dale A. Ostlie's long-time interest in astronomy began with his childhood fascination in the space program,

including vivid recollections of watching the Apollo missions with his family. His interest in teaching was born from his experiences as a student, being fortunate to have had excellent instructors and mentors in high school, college, and graduate school. During graduate school, Dale had the opportunity to spend a significant period of time working with Dr. Arthur N. Cox and the theoretical astrophysics group at Los Alamos National Laboratory. While at Los Alamos, Dale was introduced to great number of exciting and challenging problems in astrophysics, which spurred his interest in developing a broad exposure to the discipline.

After completing his graduate thesis on Mira variable stars, and after a two-year teaching position at Bates College in Maine, Dale accepted a teaching position at Weber State University. With WSU nestled up against the Wasatch mountains of Utah, Dale is able to indulge his addictions to skiing, hiking, camping, and mountain biking. One year after Dale arrived at Weber State, Brad Carroll was hired, and their partnership in stellar pulsation studies and text-book writing was born. Sharing many of the same pedagogical views, as well as a dedication to producing the best possible text, Brad and Dale worked for six years to write *An Introduction to Modern Stellar Astrophysics* and *An Introduction to Modern Astrophysics*, and another year to produce the *Instructor's Solutions Manual*. Work related to the texts continues today with the maintenance of a collection of web pages associated with the books, including discussions of new discoveries since the publication of the texts in 1996.

Most helpful customer reviews

108 of 109 people found the following review helpful.

Excellent and encyclopedic

By Amazon Customer

There are very few comprehensive astrophysics text books at the junior/senior level. In trying to find a book which surveys most of the field I found only three possibilities. Two were good (*Astrophysical Concepts* by Harwitt and *Astrophysics* by Bowers and Deeming) but this one is EXCELLENT. The level of presentation is mathematically accessible to advanced undergrads in physics, math, comp sci, and engineering while the underlying physics is reviewed before it is applied. The exercises are interesting and complete and include several nice computer based problems in each chapter.

For a one semester survey class the size and scope of this book will induce heart attacks in your students but the organization and clear layout of the text allows the instructor to select a set of topics which (a) cover a wide range of astrophysical ideas and (b) don't depend strongly on the omitted material.

Highly recommended.

46 of 46 people found the following review helpful.

The long awaited new edition of BOB (Big Orange Book)

By John Matlock

The number of books suitable for undergraduate courses in Astrophysics is not great. But of them all, this, called BOB (Big Orange Book) is the best.

This new second edition, badly needed since the first edition is now ten years old. In these ten years, there seems to have been just about as much discovered as in the centuries before. To list just a few: extrasolar planets, objects bigger than Pluto but further out (but the book was finished before the IAU decided to downgrade Pluto from being a planet), Spirit and Opportunity have been roving on Mars, discoveries like the universe is not slowing down but, rather, is actually accelerating, Dark energy wasn't even imagined at that time (and isn't easy to imagine now).

The book is aimed at the advanced undergraduate level after the student has had several previous physics

classes and mathematics through differential equations.

The one problem most often reported about BOB is its size, 1400 pages. This allows for a series of different courses to be taught using the same book by selecting appropriate chapters. Alternatively a full year course can be taught to cover most of the book.

51 of 54 people found the following review helpful.

Slow digestion necessary

By calvinme

Don't let the huge size fool you - this is indeed more of a textbook than a reference. However, it does require slow digestion of the material. Any instructor thinking they can cover this in one semester is biting off more than his students can chew. What is annoying is the lack of a table of contents. I present that information next.

Part I The Tools of Astronomy 1

Chapter 1 The Celestial Sphere 2

1.1 The Greek Tradition 2

1.2 The Copernican Revolution 5

1.3 Positions on the Celestial Sphere 8

1.4 Physics and Astronomy 19

Chapter 2 Celestial Mechanics 23

2.1 Elliptical Orbits 23

2.3 Kepler's Laws Derived 39

2.4 The Virial Theorem 50

Chapter 3 The Continuous Spectrum of Light 57

3.1 Stellar Parallax 57

3.2 The Magnitude Scale 60

3.3 The Wave Nature of Light 63

3.4 Blackbody Radiation 68

3.5 The Quantization of Energy 71

3.6 The Color Index 75

Chapter 4 The Theory of Special Relativity 84

4.1 The Failure of the Galilean Transformations 84

4.2 The Lorentz Transformations 87

4.3 Time and Space in Special Relativity 92

4.4 Relativistic Momentum and Energy 102

Chapter 5 The Interaction of Light and Matter 111

5.1 Spectral Lines 111

5.2 Photons 116

5.3 The Bohr Model of the Atom 119

5.4 Quantum Mechanics and Wave-Particle Duality 127

Chapter 6 Telescopes 141

6.1 Basic Optics 141

6.2 Optical Telescopes 154

6.3 Radio Telescopes 161

6.4 Infrared, Ultraviolet, X-ray, and Gamma-Ray Astronomy 167

6.5 All-Sky Surveys and Virtual Observatories 170

Part II The Nature of Stars 179

Chapter 7 Binary Systems and Stellar Parameters 180

7.1	The Classification of Binary Stars	180
7.2	Mass Determination Using Visual Binaries	183
7.3	Eclipsing, Spectroscopic Binaries	186
7.4	The Search for Extrasolar Planets	195
Chapter 8	The Classification of Stellar Spectra	202
8.1	The Formation of Spectral Lines	202
8.2	The Hertzsprung--Russell Diagram	219
Chapter 9	Stellar Atmospheres	231
9.1	The Description of the Radiation Field	231
9.2	Stellar Opacity	238
9.3	Radiative Transfer	251
9.4	The Transfer Equation	255
9.5	The Profiles of Spectral Lines	267
Chapter 10	The Interiors of Stars	285
10.1	Hydrostatic Equilibrium	285
10.2	Pressure Equation of State	289
10.3	Stellar Energy Sources	297
10.4	Energy Transport and Thermodynamics	316
10.5	Stellar Model Building	330
10.6	The Main Sequence	341
Chapter 11	The Sun	350
11.1	The Solar Interior	350
11.2	The Solar Atmosphere	361
11.3	The Solar Cycle	382
Chapter 12	The Interstellar Medium and Star Formation	399
12.1	Interstellar Dust and Gas	399
12.2	The Formation of Protostars	413
12.3	Pre-Main-Sequence Evolution	425
Chapter 13	Main Sequence and Post-Main-Sequence Stellar Evolution	448
13.1	Evolution on the Main Sequence	448
13.2	Late Stages of Stellar Evolution	459
13.3	Stellar Clusters	476
Chapter 14	Stellar Pulsation	485
14.1	Observations of Pulsating Stars	485
14.2	The Physics of Stellar Pulsation	493
14.3	Modeling Stellar Pulsation	501
14.4	Nonradial Stellar Pulsation	505
14.5	Helioseismology and Asteroseismology	511
Chapter 15	The Fate of Massive Stars	520
15.1	Post-Main-Sequence Evolution of Massive Stars	520
15.2	The Classification of Supernovae	526
15.3	Core-Collapse Supernovae	531
15.4	Gamma-Ray Bursts	545
15.5	Cosmic Rays	551
Chapter 16	The Degenerate Remnants of Stars	560
16.1	The Discovery of Sirius B	560
16.2	White Dwarfs	562
16.3	The Physics of Degenerate Matter	565
16.4	The Chandrasekhar Limit	572

16.5	The Cooling of White Dwarfs	575
16.6	Neutron Stars	580
16.7	Pulsars	589
Chapter 17	General Relativity and Black Holes	614
17.1	The General Theory of Relativity	614
17.2	Intervals and Geodesics	627
17.3	Black Holes	638
Chapter 18	Close Binary Star Systems	659
18.1	Gravity in a Close Binary Star System	659
18.2	Accretion Disks	667
18.3	A Survey of Interacting Binary Systems	674
18.4	White Dwarfs in Semidetached Binaries	679
18.5	Type Ia Supernovae	692
18.6	Neutron Stars and Black Holes in Binaries	695
Part III	The Solar System	720
Chapter 19	Physical Processes in the Solar System	721
19.1	A Brief Survey	721
19.2	Tidal Forces	726
19.3	The Physics of Atmospheres	731
Chapter 20	The Terrestrial Planets	744
20.1	Mercury	744
20.2	Venus	747
20.3	Earth	753
20.4	The Moon	761
20.5	Mars	769
Chapter 21	The Realms of the Giant Planets	782
21.1	The Giant Worlds	782
21.2	The Moons of the Giants	798
21.3	Planetary Ring Systems	809
Chapter 22	Minor Bodies of the Solar System	821
22.1	Pluto and Charon	821
22.2	Comets and Kuiper Belt Objects	825
22.3	Asteroids	838
22.4	Meteorites	847
Chapter 23	Formation of Planetary Systems	857
23.1	Characteristics of Extrasolar Planetary Systems	857
23.2	Planetary System Formation and Evolution	866
Part IV	Galaxies and the Universe	883
Chapter 24	The Milky Way Galaxy	885
24.1	Counting the Stars in the Sky	885
24.2	The Morphology of the Galaxy	892
24.3	The Kinematics of the Milky Way	910
24.4	The Galactic Center	934
Chapter 25	The Nature of Galaxies	953
25.1	The Hubble Sequence	953
25.2	Spirals and Irregular Galaxies	962
25.3	Spiral Structure	977
25.4	Elliptical Galaxies	997
Chapter 26	Galactic Evolution	1013

26.1 Interactions of Galaxies	1013
26.2 The Formation of Galaxies	1030
Chapter 27 The Structure of the Universe	1052
27.1 The Extragalactic Distance Scale	1052
27.2 The Expansion of the Universe	1066
27.3 Clusters of Galaxies	1072
Chapter 28 Active Galaxies	1099
28.1 Observations of Active Galaxies	1099
28.2 A Unified Model of Active Galactic Nuclei	1121
28.3 Radio Lobes and Jets	1137
28.4 Using Quasars to Probe the Universe	1145
Chapter 29 Cosmology	1160
29.1 Newtonian Cosmology	1160
29.2 The Cosmic Microwave Background	1179
29.3 Relativistic Cosmology	1199
29.4 Observational Cosmology	1215
Chapter 30 The Early Universe	1248
30.1 The Very Early Universe and Inflation	1248
30.2 The Origin of Structure	1265
Appendix A Astronomical and Physical Constants	1296
Appendix B Unit Conversions	1299
Appendix C Solar System Data	1301
Appendix D The Constellations	1303
Appendix E The Brightest Stars	1305
Appendix F The Nearest Stars	1307
Appendix G Stellar Data	1309
Appendix H The Messier Catalog	1314
Appendix I Constants, A Programming Module	1317
Appendix J Orbit, A Planetary Orbit Code	1318
Appendix K TwoStars, A Binary Star Code	1319
Appendix L StatStar, A Stellar Structure Code	1325
Appendix M Galaxy, A Tidal Interaction Code	1329
Appendix N WMAP Data	1332

See all 47 customer reviews...

AN INTRODUCTION TO MODERN ASTROPHYSICS BY BRADLEY W. CARROLL, DALE A. OSTLIE PDF

Well, when else will you find this prospect to obtain this publication **An Introduction To Modern Astrophysics By Bradley W. Carroll, Dale A. Ostlie** soft file? This is your great chance to be below and get this terrific publication **An Introduction To Modern Astrophysics By Bradley W. Carroll, Dale A. Ostlie** Never ever leave this book before downloading this soft documents of **An Introduction To Modern Astrophysics By Bradley W. Carroll, Dale A. Ostlie** in web link that we provide. **An Introduction To Modern Astrophysics By Bradley W. Carroll, Dale A. Ostlie** will really make a lot to be your friend in your lonesome. It will certainly be the very best partner to enhance your company and leisure activity.

About the Author

Bradley Carroll received his B.A. in Mathematics and a Secondary Teaching Credential from the University of California, Irvine, his M.S. in Physics from the University of Colorado, Boulder and his Ph.D. Astrophysics from the University of Colorado, Boulder.

Brad's lifelong fascination with astronomy, combined with a happy naivete concerning what lay ahead, led him to graduate school at CU Boulder. His thesis, supervised by Carl Hansen and John Cox, was a study of the effect of rotation on pulsating stars. Brad then headed east to work as a postdoc with Hugh Van Horn at the University of Rochester, where he carried out research on the oscillations of accretion disks and neutron stars. At both CU Boulder and the U of R, he learned the virtues of making simple models of complex astrophysical systems. .

Four years later, as the postdoc came to an end, Brad was lucky to find a teaching position in the Physics Department at Weber State University, and doubly lucky that Dale Ostlie was there. It is rare to find two experts in Stellar pulsation in the same institution and department, especially when their outlooks are congenial. .

Brad truly enjoys teaching which gives him the chance to share the wonders of the physical world with his students. Such a background served him well (especially his naivete about what lay ahead) when he and Dale decided to write **An Introduction to Modern Astrophysics**. Now that the book and solutions manual, are completed, Brad once again has the time to enjoy traveling, camping, and fishing.

Dale A. Ostlie's long-time interest in astronomy began with his childhood fascination in the space program, including vivid recollections of watching the Apollo missions with his family. His interest in teaching was born from his experiences as a student, being fortunate to have had excellent instructors and mentors in high school, college, and graduate school. During graduate school, Dale had the opportunity to spend a significant period of time working with Dr. Arthur N. Cox and the theoretical astrophysics group at Los Alamos National Laboratory. While at Los Alamos, Dale was introduced to great number of exciting and challenging problems in astrophysics, which spurred his interest in developing a broad exposure to the discipline. .

After completing his graduate thesis on Mira variable stars, and after a two-year teaching position at Bates College in Maine, Dale accepted a teaching position at Weber State University. With WSU nestled up against the Wasatch mountains of Utah, Dale is able to indulge his addictions to skiing, hiking, camping, and mountain biking. One year after Dale arrived at Weber State, Brad Carroll was hired, and their partnership in

stellar pulsation studies and text-book writing was born. Sharing many of the same pedagogical views, as well as a dedication to producing the best possible text, Brad and Dale worked for six years to write *An Introduction to Modern Stellar Astrophysics* and *An Introduction to Modern Astrophysics*, and another year to produce the *Instructor's Solutions Manual*. Work related to the texts continues today with the maintenance of a collection of web pages associated with the books, including discussions of new discoveries since the publication of the texts in 1996.

The presented book *An Introduction To Modern Astrophysics By Bradley W. Carroll, Dale A. Ostlie* our company offer below is not kind of common book. You understand, checking out currently doesn't mean to take care of the printed book *An Introduction To Modern Astrophysics By Bradley W. Carroll, Dale A. Ostlie* in your hand. You can get the soft documents of *An Introduction To Modern Astrophysics By Bradley W. Carroll, Dale A. Ostlie* in your gadget. Well, we suggest that guide that we extend is the soft file of the book *An Introduction To Modern Astrophysics By Bradley W. Carroll, Dale A. Ostlie*. The content and all things are same. The distinction is only the types of the book *An Introduction To Modern Astrophysics By Bradley W. Carroll, Dale A. Ostlie*, whereas, this problem will exactly be profitable.