



Cosmic Catastrophes: Exploding Stars, Black Holes, and Mapping the Universe

By J. Craig Wheeler

Download now

Read Online ➔

Cosmic Catastrophes: Exploding Stars, Black Holes, and Mapping the Universe By J. Craig Wheeler

From supernovae and gamma-ray bursts to the accelerating Universe, this is an exploration of the intellectual threads that lead to some of the most exciting ideas in modern astrophysics and cosmology. This fully updated second edition incorporates new material on binary stars, black holes, gamma-ray bursts, worm-holes, quantum gravity and string theory. It covers the origins of stars and their evolution, the mechanisms responsible for supernovae, and their progeny, neutron stars and black holes. It examines the theoretical ideas behind black holes and their manifestation in observational astronomy and presents neutron stars in all their variety known today. This book also covers the physics of the twentieth century, discussing quantum theory and Einstein's gravity, how these two theories collide, and the prospects for their reconciliation in the twenty-first century. This will be essential reading for undergraduate students in astronomy and astrophysics, and an excellent, accessible introduction for a wider audience.

 [Download Cosmic Catastrophes: Exploding Stars, Black Holes, ...pdf](#)

 [Read Online Cosmic Catastrophes: Exploding Stars, Black Hole ...pdf](#)

Cosmic Catastrophes: Exploding Stars, Black Holes, and Mapping the Universe

By J. Craig Wheeler

Cosmic Catastrophes: Exploding Stars, Black Holes, and Mapping the Universe By J. Craig Wheeler

From supernovae and gamma-ray bursts to the accelerating Universe, this is an exploration of the intellectual threads that lead to some of the most exciting ideas in modern astrophysics and cosmology. This fully updated second edition incorporates new material on binary stars, black holes, gamma-ray bursts, worm-holes, quantum gravity and string theory. It covers the origins of stars and their evolution, the mechanisms responsible for supernovae, and their progeny, neutron stars and black holes. It examines the theoretical ideas behind black holes and their manifestation in observational astronomy and presents neutron stars in all their variety known today. This book also covers the physics of the twentieth century, discussing quantum theory and Einstein's gravity, how these two theories collide, and the prospects for their reconciliation in the twenty-first century. This will be essential reading for undergraduate students in astronomy and astrophysics, and an excellent, accessible introduction for a wider audience.

Cosmic Catastrophes: Exploding Stars, Black Holes, and Mapping the Universe By J. Craig Wheeler
Bibliography

- Sales Rank: #869797 in Books
- Published on: 2007-01-22
- Original language: English
- Number of items: 1
- Dimensions: 8.98" h x .83" w x 5.98" l, 1.50 pounds
- Binding: Hardcover
- 358 pages

 [Download Cosmic Catastrophes: Exploding Stars, Black Holes, ...pdf](#)

 [Read Online Cosmic Catastrophes: Exploding Stars, Black Hole ...pdf](#)

Download and Read Free Online Cosmic Catastrophes: Exploding Stars, Black Holes, and Mapping the Universe By J. Craig Wheeler

Editorial Review

From Publishers Weekly

Supernovae occur when a star blows up: in its death throes, a star gone supernova "becomes as bright as an entire galaxy." University of Texas astrophysicist Wheeler is one of the world's experts on such stellar explosions and the forces behind them. This accessible, painstaking work of astronomical exposition brings to a general readership Wheeler's knowledge of stars, supernovae and their cousins. The first chapter covers the life cycles of "ordinary" single stars, which coalesce, burn, turn yellow, then red, then dark. Wheeler then gets to the weird stuff: binary stars, which orbit each other in pairs, and to white dwarves, accretion disks, pulsars and the density of the universe. From models of supernovae, the volume proceeds to specific observed explosions, especially to SN 1987A, which emerged from the Large Magellanic Cloud in February of that year and brought with it experimental confirmation of all sorts of theories. The most famous end-stage product of a star's demise is the black hole, a locus of gravity so dense nothing that goes in can ever come out. Wheeler moves from black holes into space-time and gee-whiz cosmology and to supernova-related theories about the universe's expansion; these issues have been set forth in a glut of popular books, and though Wheeler's exegeses are useful and clear, it's the star-level science here that really shines. This book evolved from a longstanding and popular course taught by Wheeler: its careful explication and organization, designed to attract readers with no knowledge of physics, are welcome by-products of its collegiate origin. 33 halftones and 15 line drawings. (June)

Copyright 2000 Reed Business Information, Inc.

From Scientific American

For 25 years, Wheeler, a professor of astronomy at the University of Texas at Austin, has taught a course called Astronomy Bizarre. Its aim is "to introduce some of the exotica of astronomy for which one has little time in the standard introductory course for nonscience majors." Exotica, indeed, populate this book that derives from the course. Accretion disks, supernovae, neutron stars, black holes and gamma-ray bursts march through, all presented with a clarity that doubtless comes from Wheeler's long experience in teaching astrophysics to "bright, interested, but nontechnically trained students." And then he gets to what might be called superexotica: wormholes, time machines, quantum gravity and string theory. It is heady stuff, as he says. So is what he calls "the deepest issue that drives both physicists and theologians." It is, "Why are we here?"

EDITORS OF SCIENTIFIC AMERICAN

Review

"Wheeler's exposition uses elegant word descriptions based on deep physical insight, rather than mathematical expressions, and thus the book is accessible to nontechnical persons.... A sweeping survey, comprehensive and well written." -Choice

2007 Outstanding Academic Title -- Choice Magazine

"...a scholarly yet readable account of violent events in the Universe...The author is one of the world's leading experts in these fields and he writes with immense authority...I have no doubt that it will run to many editions." --Patrick Moore: BBC Sky at Night

"A great deal of information is packed into this small book...all of it explained in Wheeler's extremely lucid

fashion...Five or six thumbs up for this one!" --Review from the Online Bookstore of the American Association of Variable Star Observers

Users Review

From reader reviews:

Don Gonzales:

This book untitled Cosmic Catastrophes: Exploding Stars, Black Holes, and Mapping the Universe to be one of several books that will best seller in this year, here is because when you read this publication you can get a lot of benefit into it. You will easily to buy that book in the book store or you can order it by means of online. The publisher with this book sells the e-book too. It makes you more readily to read this book, because you can read this book in your Smartphone. So there is no reason for you to past this reserve from your list.

Lila Johnson:

The actual book Cosmic Catastrophes: Exploding Stars, Black Holes, and Mapping the Universe will bring someone to the new experience of reading a book. The author style to spell out the idea is very unique. Should you try to find new book you just read, this book very suitable to you. The book Cosmic Catastrophes: Exploding Stars, Black Holes, and Mapping the Universe is much recommended to you to read. You can also get the e-book through the official web site, so you can quicker to read the book.

Matthew Ibarra:

The book untitled Cosmic Catastrophes: Exploding Stars, Black Holes, and Mapping the Universe is the publication that recommended to you to see. You can see the quality of the guide content that will be shown to you actually. The language that writer use to explained their ideas are easily to understand. The copy writer was did a lot of investigation when write the book, hence the information that they share for you is absolutely accurate. You also could possibly get the e-book of Cosmic Catastrophes: Exploding Stars, Black Holes, and Mapping the Universe from the publisher to make you a lot more enjoy free time.

Armando Morris:

This Cosmic Catastrophes: Exploding Stars, Black Holes, and Mapping the Universe is great book for you because the content which is full of information for you who always deal with world and possess to make decision every minute. This particular book reveal it details accurately using great coordinate word or we can point out no rambling sentences in it. So if you are read the idea hurriedly you can have whole facts in it. Doesn't mean it only provides straight forward sentences but tough core information with lovely delivering sentences. Having Cosmic Catastrophes: Exploding Stars, Black Holes, and Mapping the Universe in your hand like keeping the world in your arm, info in it is not ridiculous just one. We can say that no reserve that offer you world throughout ten or fifteen tiny right but this reserve already do that. So , this can be good reading book. Heya Mr. and Mrs. occupied do you still doubt that?

**Download and Read Online Cosmic Catastrophes: Exploding Stars,
Black Holes, and Mapping the Universe By J. Craig Wheeler
#I71HB4ZC5WJ**

Read Cosmic Catastrophes: Exploding Stars, Black Holes, and Mapping the Universe By J. Craig Wheeler for online ebook

Cosmic Catastrophes: Exploding Stars, Black Holes, and Mapping the Universe By J. Craig Wheeler Free PDF d0wnl0ad, audio books, books to read, good books to read, cheap books, good books, online books, books online, book reviews epub, read books online, books to read online, online library, greatbooks to read, PDF best books to read, top books to read Cosmic Catastrophes: Exploding Stars, Black Holes, and Mapping the Universe By J. Craig Wheeler books to read online.

Online Cosmic Catastrophes: Exploding Stars, Black Holes, and Mapping the Universe By J. Craig Wheeler ebook PDF download

Cosmic Catastrophes: Exploding Stars, Black Holes, and Mapping the Universe By J. Craig Wheeler Doc

Cosmic Catastrophes: Exploding Stars, Black Holes, and Mapping the Universe By J. Craig Wheeler Mobipocket

Cosmic Catastrophes: Exploding Stars, Black Holes, and Mapping the Universe By J. Craig Wheeler EPub

I71HB4ZC5WJ: Cosmic Catastrophes: Exploding Stars, Black Holes, and Mapping the Universe By J. Craig Wheeler