

**A VIEW FROM THE CENTER OF THE UNIVERSE**

*Discovering Our Extraordinary Universe*

By Joel R. Primack & Nancy Ellen Abrams

Riverhead Books

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"There are illuminating views to be found here of how the universe behaves and what it consists of..."

*Kirkus Reviews*

"The strength of the married writing team of Primack and Abrams is their complementary perspectives on a fascinating subject... Drawing on the latest findings in astrophysics and cosmology, their readable, lyrically written new book examines the past, present, and future of our understanding of the universe. In an intriguing meld of history, philosophy, anthropology, physics, ecology, and global politics, the authors offer a beautiful balance of scientific fact and theory, challenging readers to learn, to question, and, ultimately, to "think cosmically, act globally." This terrific book will appeal to people who are interested in what's "out there," regardless of their background (or lack thereof) in the sciences.

*Library Journal*, starred

**THE VIEW FROM THE CENTER OF THE  
UNIVERSE:**

*Discovering Our Extraordinary Place in the  
Cosmos*

**By Joel R. Primack and Nancy Ellen Abrams**

Already praised by leading scientists, spiritual leaders, and journalists in the field, **THE VIEW FROM THE CENTER OF THE UNIVERSE** (Riverhead; April 6, 2006; \$ 26.95) opens up a new way of understanding the universe and our place in it. Written by the world-renowned scientist Joel R. Primack and Nancy Ellen Abrams, a lawyer and writer with a long-term interest in the history, philosophy, and politics of science, this new book is a thrilling account of the universe and the rich possibilities its story holds for the earth's future. Primack and Abrams assert that astronomy is in the midst of a scientific revolution, and we are the first generation able to see and understand the full complexities of the cosmos.

**THE VIEW FROM THE CENTER OF THE UNIVERSE** makes a compelling case for the need to reshape the roles science, economics, politics, religion, and the arts play in the years to come.

Primack and Abrams show that the concept of the universe as a vast, impersonal space is not reality but a historical artifact from the age of Copernicus, Galileo, and Newton. When these early scientists showed that the earth is not the center of the universe, humans no longer seemed cosmically significant, and the science that studied these things seemed disconnected from human endeavor. No amount of information or "news" about scientific discoveries has changed this underlying seventeenth century assumption that we are in some random place in an almost empty universe. **THE VIEW FROM THE CENTER OF THE UNIVERSE** proposes a radical new view of the cosmos and our place in it, and suggests that taking our newly discovered place seriously will change our view of earth and even ourselves. The result is revolutionary: a science-based cosmology that can guide critical decisions here on earth.

As one of the world's leading cosmologists and an originator and developer of the theory of Cold Dark Matter, now accepted as the standard theory of the structure and evolution of the universe, Primack possesses the scientific credentials to penetrate the complex science underlying the universe's structure. Combining his expertise with Abrams's wide-ranging scholarship in the history of science and the arts, **THE VIEW FROM THE CENTER OF THE UNIVERSE** explores how meaning can be found in the new information coming in daily from the heavens. Lyrical as well as rigorously grounded in the latest findings in astrophysics and cosmology, this book presents new ways to approach this cascade of information and its implications for our planet. It presents a new picture of the universe for readers regardless of whether they have any scientific background or not. In fact, the authors' goal is to make the universe accessible to everyone who wants to understand it. They tour the history of how traditional cultures have sought to explain not only the mechanism of the universe but its meaning to humans. Their point: humans have long sought connections between their actions on earth and the cosmos as they understood it.

Taking this history as an indication of how humans need to conceptualize their cosmologies, Primack and Abrams have figured out how to visually communicate the fundamental characteristics of the new universe. They have redefined familiar images and ancient metaphors into a modern series of symbols that illustrate cutting-edge scientific understandings and theories. What each symbol shows graphically could not be more surprising or profound – human beings are, against all modern intuition, central to the expanding universe in at least seven ways that are not anthropocentric but arise out of the laws of physics – “central,” that is, not geographically but in ways Copernicus and those who followed never suspected.

In addition, Primack and Abrams also include a series of "contemplations" designed and tested for years on their own students at U.C. Santa Cruz that allow a reader to grasp difficult concepts that defy earthly experiences. Discussing concepts that range from dark matter and size scales to eternal inflation and more, the authors use their symbols to help clarify what is now known about how the universe may have begun, what it is made of, how it works, and how humans and earth fit into the larger picture and larger story of the cosmos.

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The authors persuasively make the case that understanding the nature of our universe has profound implications for everyone here on earth, not just those engaged in research, because the universe is not just “out there” – it’s here. The ecological as well as financial and political balances in our own world, and the challenge of stewarding our planet through the coming end of explosive growth, are re-envisioned through the prism of Primack's and Abrams's brilliant synthesis. Their goal is to help this generation and those in the future to use this new knowledge to expand our perspectives and protect the long-term well-being of our planet and our descendants. With the principle "Think Cosmically, Act Globally," Primack and Abrams build a new foundation for understanding this complex science and its inextricable earthly ties.

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**ABOUT THE AUTHORS:** **Joel R. Primack**, Professor of Physics at the University of California, Santa Cruz, specializes in the formation and evolution of galaxies and the nature of the dark matter that makes up most of the matter in the universe. Primack received his A.B. from Princeton in 1966 and his Ph.D. from Stanford in 1970. He was then a Junior Fellow of the Society of Fellows of Harvard University. After helping to create what is now called the “Standard Model” of particle physics, Primack began working in cosmology in the late 1970s and he became a leader in the new field of particle astrophysics. He is one of the principal originators and developers of the theory of Cold Dark Matter, which has become the basis for the standard modern picture of structure formation in the universe. Dr. Primack’s research in cosmology is described in most modern books on the subject, and he has been profiled at some length in several books including *New York Times* science writer Dennis Overbye's *Lonely Hearts of the Cosmos* and *Time* magazine science editor Michael Lemonick’s *The Light at the Edge of the Universe*. Primack is also frequently interviewed by reporters for print and broadcast media. He was one of the main advisors for the Smithsonian Air and Space Museum's 1996 IMAX film *Cosmic Voyage*. In addition to more than 200 technical articles in professional journals, Primack has written a number of articles aimed at a more popular audience. These include the articles on “gravitation,” “matter,” “dark matter,” “dark energy,” and other physics and astronomy topics in the *World Book Encyclopedia*, and articles in publications such as *Astronomy*, *Beam Line*, *California Wild*, *Sky and Telescope*, and in the *McGraw-Hill Encyclopedia of Science* and the *Encyclopedia of Astronomy and Astrophysics*.

**Nancy Ellen Abrams** received her B.A. in the history and philosophy of science from the University of Chicago, her J.D. from the University of Michigan, and a diploma in international law from the Escuela Libre de Derecho in Mexico City. She was a Fulbright Scholar and a Woodrow Wilson Designate. She is a writer whose work has appeared in journals, newspapers, and magazines, such as *The Bulletin of the Atomic Scientists*, *Environment*, *California Lawyer*, *Science and Global Security*, and *Tikkun*. She has a long-term interest in the role of science in shaping a new politics and has worked in this area for a European environmental think tank in Rome, the Ford Foundation, and the Office of Technology Assessment of the U.S. Congress, where she co-invented (with R. Stephen Berry of the National Academy of Sciences) a novel procedure called “Scientific Mediation.” Abrams is also a songwriter who has performed at conferences, concerts, and events in eighteen countries, released three albums, and been featured on National Public Radio and television.

Please see attached biographies for more details or visit <http://ViewfromtheCenter.com>