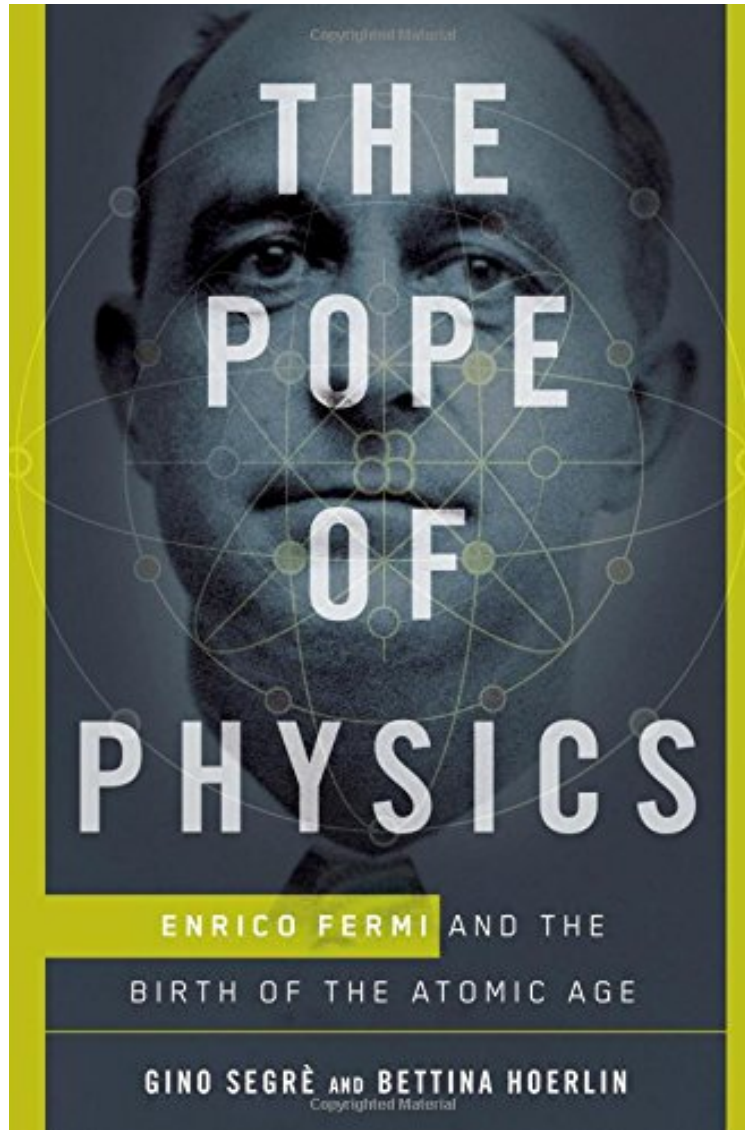


(Download ebook) The Pope of Physics: Enrico Fermi and the Birth of the Atomic Age

The Pope of Physics: Enrico Fermi and the Birth of the Atomic Age

Gino Segr, Bettina Hoerlin

*DOC | *audiobook | ebooks | Download PDF | ePub*



DOWNLOAD



+

READ ONLINE

#84743 in Books Segre Gino 2016-10-18 2016-10-18Original language:EnglishPDF # 1 238.25 x 31.88 x 6.311, .0 #File Name: 1627790055368 pagesThe Pope of Physics Enrico Fermi and the Birth of the Atomic Age | File size: 44.Mb

Gino Segr, Bettina Hoerlin : The Pope of Physics: Enrico Fermi and the Birth of the Atomic Age before purchasing it in order to gage whether or not it would be worth my time, and all praised The Pope of Physics: Enrico Fermi and the Birth of the Atomic Age:

0 of 0 people found the following review helpful. Not great literature, but a wonderful story about a great manBy Dallas Sub SailorI dont think anyone including the authors would claim that The Pope of Physics is great literature. It

isnt, but it is well written, easy to read and extraordinarily interesting. Enrico Fermi was one of the great men of physics during the 20th century. His friends and coworker gave him the nickname of the Pope because when it came to physics, his pronouncements were infallible. Fermi ranks right up there with Albert Einstein, Niels Bohr and Marie Curie. Fermi was awarded the Nobel Prize for physics in 1938. He immigrated to the United States from Italy later that same year. Because his wife was Jewish, their children would also have been classified as Jewish. It was not safe for Fermi and his family to remain in Italy after the alliance with Germany became a fait accompli. When Fermi first came to America, he became a physics professor at Columbia. A few years later in 1942, Fermi led a team of scientists that developed the first successful nuclear reactor. The reactor went critical on December 2, 1942. It was the first self-sustaining controlled nuclear reaction ever. Fermi's contributions to the Manhattan Project were invaluable. He was one of the few physicists that excelled both theoretically and experimentally. He did not shrink from hard work or literally getting his hands dirty. Fermi led by example both at the chalkboard and in the lab. As a young man back in the 1960s, I served aboard the U.S. Navys FBM (Fleet Ballistic Missile) submarines. Each sub carried sixteen Polaris missiles. Each of the missiles was armed with a thermonuclear weapon, much more powerful than those dropped on Hiroshima and Nagasaki. The subs were also armed with the latest and most effective torpedoes. Some were nuclear tipped. At the time, these submarines were the most deadly weapons systems on earth. With only a few minutes notice, we could launch our missiles from the oceans depths, without fear of detection. That is an example of the destructive side of nuclear power. These weapon systems served the country well for many years as a deterrent against potential surprise attacks. Thankfully, we never had to launch our missiles or fire our torpedoes. But there is another side to nuclear power, a peaceful side. The subs were powered by nuclear reactors. Basically, the reactors are a source of heat. Without going into too much detail, the heat from the reactor (and there was a lot of it) is used to generate steam. The subs are actually propelled by steam turbines, which is why a nuclear sub can remain submerged almost indefinitely or at least until the food runs out. There was no need to surface to take on fuel. We could make our own oxygen and drinking water while submerged, but not food. In the U.S. today, about twenty percent of our electrical power comes from nuclear power. In France, that number is almost 75 percent. Nuclear power, when properly designed, sited and operated is safe, efficient and clean. There are no greenhouse gases. Enrico Fermi not only helped design the bomb. He is also one of the fathers nuclear energy for peace. After the war, Fermi accepted a teaching position at the University of Chicago. Six of his students went on to win the Nobel Prize. Also, one of his Italian students went on to become a Nobel laureate. That is quite a record. R.I.P. Enrico Fermi. 1 of 1 people found the following review helpful. A Book about Fermi and much more By Customer I completed training to become a radiographer some time ago. The physics portion included many of the molecular/atomic exchanges that occurred when x-ray images are taken. The lessons provided depth and insight to the actions consequent to the mere touch of the exposure button on the x-ray tube; truly fascinating. "The Pope of Physics" transcended this amazement by bringing to life the discoverers of said reactions. The book enables a time travel to the formative years of numerous physics building blocks. Sengre breathes life into the marvel of it all. One feels present as the scientists discuss their theories and experiments. What a great read! 0 of 0 people found the following review helpful. They were GREAT teachers. The stories in the book discuss most ... By Eugene Eisman It brings me back to my days at the University of Chicago. At the university ALL professors are required to teach beginners courses. Fermi was teaching first year physics the year before I became a freshman. I did have Anderson, one of his associates, when I took physics. Harold C Urey taught my wife first year chemistry. They were GREAT teachers. The stories in the book discuss most of Fermi's associates, and although I thought I knew about the building of the pile in the west stands, the book corrected many of my misconceptions.

Enrico Fermi is unquestionably among the greats of the world's physicists, the most famous Italian scientist since Galileo. Called the Pope by his peers, he was regarded as infallible in his instincts and research. His discoveries changed our world; they led to weapons of mass destruction and conversely to life-saving medical interventions. This unassuming man struggled with issues relevant today, such as the threat of nuclear annihilation and the relationship of science to politics. Fleeing Fascism and anti-Semitism, Fermi became a leading figure in America's most secret project: building the atomic bomb. The last physicist who mastered all branches of the discipline, Fermi was a rare mixture of theorist and experimentalist. His rich legacy encompasses key advances in fields as diverse as cosmic rays, nuclear technology, and early computers. In their revealing book, *The Pope of Physics*, Gino Segrè and Bettina Hoerlin bring this scientific visionary to life. An examination of the human dramas that touched Fermi's life as well as a thrilling history of scientific innovation in the twentieth century, this is the comprehensive biography that Fermi deserves.

Selected by Philip Tetlock as one of Bloomberg's Best Books of 2016 Shortlisted for Physics World's Book of the Year One of Booklist's Top 10 Science Books - [A] superb biography. . . [the authors] have produced a definitive study of Fermi's life and work. --- Andrew Crumey, *The Wall Street Journal* - [The Pope of Physics is] the first popular cradle-to-grave biography in English of the most famous Italian scientific investigator since Galileo Galilei. . . [The authors] quickly hit their stride with a lucid account of how Fermi was born in 1901 to a middle-class family in Rome and

became one of the very few physicists to be in the front rank in both theory and experiment. --Nature -[An] impressive new biography...[Segre and Hoerlin] have combined sophisticated understanding of Fermi's scientific achievements with intimate, often charming stories of the famed physicist's personal life, to create a book that's both intelligent and extremely engaging...a story filled with drama, creativity, adventure.---The Washington Post-There are many reasons to love *The Pope of Physics: Enrico Fermi and the Birth of the Atomic Age*, a new biography of the celebrated Italian physicist. It is humane, scientifically astute, and beautifully written. And what a life it chronicles!...Authors Gino Segre, the nephew of Fermi's colleague Emilio Segre, and Bettina Hoerlin, whose father Hermann Hoerlin was an industrial physicist and group leader at Los Alamos National Laboratory, are wonderful writers with a deep sense of the personalities, science, historical backdrop, and locales of Fermi's story. Although the book told a familiar tale, I literally could not put it down once I started it...lively and charming first-person narrative....I strongly recommend *The Pope of Physics* for anyone who wants to know more about Fermi or to use his example in teaching.---Physics Today-Had Fermi turned his intuition to the problem it is likely that fission would have been discovered in Italy in early 1935, and not nearly four years later in Germany. Were that the case, Segre and Hoerlin point out, it is possible that Hitler would have had an atomic bomb to use during the Second World War.---Gregg Herken, New York Times Book Editor's Choice, New York Times Book , November 27, 2016: *THE POPE OF PHYSICS: Enrico Fermi and the Birth of the Atomic Age*. An assured and informative biography of the pioneering nuclear scientist. -[A]n informative biography of Fermi that also manages to deepen the sense of quiet mystery surrounding the legendary physicist...The authors...are to be thanked for deftly fleshing out a young Fermi through the pages of history. - --The Wire-A valuable new biography---Albuquerque Journal-Few writers are better positioned than that duo to bring Fermi's story to light....Combining family lore with intensive research, Segre and Hoerlin offer unique insights into Fermi's life and work, set against the background of politics and the early years of the Atomic Age.---Dallas Morning News-Fermi, who excelled in so many areas . . . resists simple iconization . . . a quick-paced and highly readable account that manages to distill Fermi's rich and productive life into a little over 300 pages....[a] welcome and admirable biography.---Natural History magazine-By placing stunning scientific advances into historical context, this engaging biography of Nobel Prize-winning Italian physicist Enrico Fermi (1901-1954) captures the life and times of one of the 20th century's most creative and hard-working scientists...fans of pop science and history will thoroughly enjoy this entertaining and accessible biography of a scientist who deserves to be better understood. - -- Publishers Weekly, starred and boxed review-[An] illuminating biography of the immigrant genius who earned a prime place among the elite scientists who watched the planet's first mushroom cloud rise above New Mexico sands...By exploring Fermi's friendships, his marriage and family life, and his postwar concerns about morality in an atomic age, the authors also give readers glimpses into something of Fermi's personal, nonscientific attributes. A balanced portrait, rich in revealing anecdotes. - --Booklist, starred review -Given his role in ushering in the Atomic Age, it is surprising that, until now, there has been no major biography of Fermi in English; *The Pope of Physics: Enrico Fermi and the Birth of the Atomic Age*... does an excellent job of filling that gap... Happily, the authors' clear explanations ensure that the reader is not only able to follow Fermi's contributions to science, but also understand their impact on his life story... this comprehensive and enjoyable biography is a valuable introduction to the life of Fermi. - -- BookPage -The authors use this biography of Fermi's life--beginning with his university days, when he immersed himself in the new field of quantum physics, and culminating in his own groundbreaking accomplishments--to engagingly chronicle the major developments in nuclear physics that were the focus of his life's work. . . . A vivid retelling of events that still shape our lives today. - --Kirkus s-Readers of history and physics will enjoy learning about this theoretical and experimental physicist, whose name lives on in the fermion particles, the element fermium, and the national accelerator lab near Chicago. - --Library Journal-Superbly written. This will set the gold standard for books on Enrico Fermi.---MICHIO KAKU, theoretical physicist and author of *Physics of the Future* and *The Future of the Mind*-A delightful and compelling history of Enrico Fermi--a hero to anyone who knows about physics...With its detailed scholarship combined with insightful analysis, this book was clearly a labor of love for Segre and Hoerlin, whose personal and scientific connections to Fermi make them the ideal biographers of this great man.---LAWRENCE M. KRAUSS, author of *The Physics of Star Trek* and *A Universe from Nothing*-In *The Pope of Physics*, the first in-depth biography of Enrico Fermi, Segre and Hoerlin bring the man and his work to life with exhaustive research and authoritative prose.---SYLVIA NASAR, author of *A Beautiful Mind*-This beautifully written biography of Enrico Fermi brings us the whole man--the circumstances that molded him, his genius, his central contributions to the coming of the atomic age, and his very human qualities.---JEROME FRIEDMAN, Nobel Prize-winner and former graduate student of Enrico Fermi -Segre and Hoerlin have artfully incorporated a personal backdrop shedding light on the behaviors that drove the decisions and motivations of Enrico Fermi, a 20th century one-of-a-kind genius--a compelling story.---NIGEL LOCKYER, experimental particle physicist and director of Fermi National Accelerator Laboratory -In the hands of Segre and Hoerlin, enriched with fresh material from his inner circle, Fermi's life becomes a brilliant--and true--historical novel.---FRANK WILCZEK, Nobel Prize-winning physicist, Massachusetts Institute of Technology, and author of *A Beautiful Question*About the AuthorGino Segre is a professor of Physics and Astronomy at the University of Pennsylvania. He has been a visiting professor at M.I.T. and Oxford University, chair of the Department

of Physics and Astronomy at the University of Pennsylvania, and director of theoretical physics at the National Science Foundation. He is the author of several books of scientific history, *Ordinary Geniuses*, *Faust in Copenhagen*, and *A Matter of Degrees*. Bettina Hoerlin taught healthcare disparities at the University of Pennsylvania for sixteen years. She also has been a visiting lecturer at Haverford College and Oxford University. Her career in health policy and administration included serving as Health Commissioner of Philadelphia. The author of *Steps of Courage: My Parents Journey from Nazi Germany to America*, she grew up in the Atomic City of Los Alamos.