

1. Record Nr.	UNINA9910810152203321
Autore	Christy I.-Juliana
Titolo	Achieving the rare : Robert F. Christy's journey in physics and beyond / / I.-Juliana Christy, California Institute of Technology, USA
Pubbl/distr/stampa	Hackensack, NJ, : World Scientific, 2013 New Jersey : , : World Scientific, , [2013] 2013
ISBN	981-4460-25-7
Descrizione fisica	1 online resource (xv, 349 pages) : illustrations (some color)
Collana	Gale eBooks
Disciplina	530.092 B
Soggetti	Physicists - United States Nuclear physics - United States - History - 20th century Astrophysics - United States - History - 20th century
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Includes index.
Nota di contenuto	Contents; Preface; Chapter 1. His Childhood; The Origin of Robert's Names; The Sinking of the Titanic; Marriage of Moise and Hattie (Robert's Parents); Death of Robert's Father; Robert's Early Years; No More Gambling; Death of Robert's Mother; Early Interests; Academic Successes; Chapter 2. The Formative UBC Years; Robert's Social Life at UBC; Summer Jobs While at UBC; Moving On from UBC; Chapter 3. Exciting Graduate Years with Oppenheimer; Becoming Part of the Birth of Particle Physics; Robert's Years at Berkeley in His Own Words; Chapter 4. The First Marriage, to Dagmar von Lieven Robert's Parenting of His Sons Ted and PeterRobert's Memories of His Sons; Ted and Peter in College and as Adults; An Unusually Amicable Divorce; Chapter 5. The Very First Nuclear Reactor; An Unfulfilling Job Teaching at Illinois Tech in 1941; Background: The Discovery of Nuclear Fission in Germany; Origin of the German Nuclear Project; Origin of the U.S. Nuclear Project; The Early British Nuclear Project; The Manhattan Project Begins; Robert Joins the Project; The Creation of the First Nuclear Reactor, Chicago Pile-1; Founding of the Hanford Reactors; Founding of the Argonne Reactors

Robert's Friendship with Fermi; The Fizzling of the Nazi Nuclear Project; The 1962 White House Reception Commemorating Chicago Pile-1; Chapter 6. Designing the First Atomic Bomb; Robert's Arrival at Los Alamos in Early 1943; Robert's Bosses at Los Alamos: Peierls, Bethe, Oppenheimer, and Groves; The Spy Klaus Fuchs; Robert's "Instant Fame" from His "Water Boiler" Reactor Calculations; The One-Dollar Patents at Los Alamos; Understanding Large Explosions such as the Volcano Krakatoa; Robert's Work on the Implosion Bomb: the "Christy Gadget"; Why the "Christy Gadget" and Not the "Christy Bomb"? The Trinity Test for the Implosion Design; First Attempts to Prevent the Actual Use of Atomic Bombs; Firebombing vs. Atomic Bombs; Groves' Motivation for Dropping the Bombs; The Use of the Two Atomic Bombs; After the War Had Ended; Robert's Memories of His Colleagues at Los Alamos; Robert's Memories of Visitors von Neumann and Bohr; Recreational Activities at Los Alamos; The Patent for the "Water Boiler" Reactor; A 1991 Package of Declassified Information on the "Water Boiler" Reactor; A Retrospective Article in the Pasadena Star-News; Chapter 7. Opposing Nuclear Weapons Proliferation; Robert's View of the "Christy gadget"; The Association of Los Alamos Scientists; The Oppenheimer Trial; The Teller Handshake Incident; Security Interview of Robert in 1955, Regarding Communism; The 1963 Enrico Fermi Award for Oppenheimer; Working Towards an Atmospheric Test Ban; The Los Angeles Times Gamble; Robert Discovers the Cause of Mysterious Communication Failures; Robert's Work Towards Initiating the SALT Talks; Robert's Opposition to Higher-Tech Weapons in the Vietnam War; Chapter 8. Becoming Oppenheimer's Successor at Caltech; Working with Fermi in Chicago, and Co-Habiting with Teller; Leaving for Caltech

Sommario/riassunto

Robert F Christy was a fascinating physicist who was one of the key players in some of the most dramatic events of the 20th century. He was one of Oppenheimer's students, whom Oppenheimer hailed as "one of the best in the world." He was a co-creator of the world's first nuclear reactor and the first atom bombs, of which the most practical design was called the "Christy Gadget." Later, he became a leader in the effort to contain nuclear proliferation, leading up to the SALT talks, and headed a study on long-term health effects of radiation crucial for medical safety standards. He also made pione
