
Complete bibliography (almost*) for *Feynman*, by Jim Ottaviani and Leland Myrick (NY: First Second, 2011)

By Feynman

“Address to Far Rockaway High School Audience.” (Courtesy of the California Institute of Technology Archives, 1966.)

Much of the sequence showing Feynman in high school comes from this speech. Even if Caltech wasn't such a lovely campus—and if their student union didn't offer terrific vegetarian pizza by the slice!—I'd recommend a trip just to read it.

The Character of Physical Law (Cambridge, MA: MIT Press, 1965).

The perfect book to read to get a feel for quantum physics. The introduction for this book comes from an anecdote recounted by James Gleick's introduction to the 1994 Modern Library edition, so seek that one out if you can't find the original.

Classic Feynman: All the Adventures of a Curious Character (NY: W.W. Norton, 2006).

While I still like the original volumes, since the Feynman stories out of order are a great way to experience a life the way it is—messy, and without a discernable plot!—this may just be bias resulting from these being my first exposure to them. So if you only get one, the omnibus *Classic Feynman* is your best bet. It not only has all the stories from *Surely You're Joking, Mr. Feynman!* (1985) and “What Do You Care What Other People Think?” (1988) but also includes a CD with Feynman telling the “Los Alamos From Below” story. Carl and Michelle Feynman contribute to the book as well, as do Freeman Dyson and Alan Alda.

The Feynman Lectures on Physics, volumes I-III, by Richard Feynman, Robert Leighton, and Matthew Sands (Reading, MA: Addison-Wesley, 1964).

Along with *QED* (below), with this you have of physics, right there waiting for you. OK, not really all, but close enough to make no never mind! The *Lectures* are tougher sledding, and I've only dipped into the latter here and there myself. But they're well worth the effort. (I recommend volume II's chapter 19, “The Principle of Least Action” as your first sample.)

Feynman's Tips on Physics, by Richard Feynman, Michael A. Gottlieb, and Ralph Leighton (San Francisco: Pearson Addison Wesley, 2006).

Not only does Feynman provide tips on solving physics problems, he also provides tips on how to deal with being below average. They're surprisingly good, given how far he was from such a position. Matt Sands' introduction, describing the origins of the Feynman Lectures, is also entertaining.

The Meaning of It All: Thoughts of a Citizen Scientist (Reading, MA: Perseus Books, 1998).

These lectures are some of the results of the middle aged disease Feynman talked about. (The urge to give talks outside of his specific area of expertise.) They're really not bad! These cleaned up versions make an interesting counterpoint to the raw transcriptions available in the Caltech Archives—which I enjoyed reading and consulting even more, and some of which made their way into this book.

Nano: The Emerging Science of Nanotechnology, by Ed Regis (Boston: Little Brown, 1995).

Regis is an engaging writer, and his account of the lead-up and immediate aftermath of Feynman's “Plenty of Room at the Bottom” speech gives you a real flavor for the times.

Nobel Acceptance and “The Development of the Space-Time View of Quantum Electrodynamics,” from *Les Prix Nobel en 1965* (Stockholm: Imprimerie Royale P.A. Norstedt & Söner, 1966).

Even dressed in a tuxedo and sitting next to royalty, Feynman remained his quotable self.

The Pleasure of Finding Things Out, edited by Jeffrey Robbins (Cambridge, MA: Helix Books, 1999).

These are all terrific, as is Freeman Dyson’s Foreword. Read them all, but if you’re short on time the best ones are “The Pleasure of Finding Things Out,” “There’s Plenty of Room at the Bottom,” “The Smartest Man in the World,” “Cargo Cult Science,” and...aw heck, read them all!

Perfectly Reasonable Deviations from the Beaten Track (NY: Basic Books, 2005).

Before email, people wrote letters. And in 1968 Richard Feynman started donating his personal papers to the Caltech Archives. Thank goodness. Michelle Feynman edited the collection and added commentary as well as many lovely photographs, and Timothy Ferris provided the foreword.

QED: The Strange Theory of Light and Matter (Princeton, NJ: Princeton University Press, 1985).

Feynman wrote this specifically for people—like Alix Mautner—with no background in math or physics. You can see Feynman deliver the lectures in New Zealand thanks to the Vega Science Trust: <http://www.vega.org.uk/video/subseries/8>

The Reason for Antiparticles, from “Elementary Particles and the Laws of Physics: The 1986 Dirac Memorial Lectures” (Alexandria, VA: Scientific Consulting Services, 1997) and *Elementary Particles and the Laws of Physics: The 1986 Dirac Memorial Lectures*, by Richard Feynman and Steven Weinberg (Cambridge: Cambridge University Press, 1987).

Feynman’s visual, and physical, lecture style is in full force during his demonstration of the importance of spin and rotation in physical theories.

Six Easy Pieces: Essentials of Physics Explained by Its Most Brilliant Teacher (Reading, MA: Helix Books, 1994) and *Six Not-So-Easy Pieces: Einstein’s Relativity, Symmetry, and Space-Time* (Reading, MA: Helix Books, 1997).

Though the second book will stretch your mind, both are still a whole lot of fun! I recommend the audio versions to get the full flavor of Feynman’s style.

By others

The Beat of a Different Drum: The Life and Science of Richard Feynman, by Jagdish Mehra (Oxford: Oxford University Press, 1994).

Plenty of physics, and mathematical physics at that, but still my favorite biography of Feynman, for both its completeness and the obvious care Mehra took in interviewing Feynman and weaving together the whole of his life.

The Best Mind Since Einstein, produced by Christopher Sykes and Melanie Wallace (Boston: WGBH/PBS/NOVA Series, originally broadcast December 21, 1993).

A terrific overview of Feynman’s life and career in science. Watch this.

Climbing the Mountain: The Scientific Biography of Julian Schwinger, by Jagdish Mehra and Kimball A. Milton (Oxford: Oxford University Press, 2000).

An excellent companion to Mehra's *The Beat of a Different Drum*.

Disturbing the Universe, by Freeman Dyson (NY: Harper and Row, 1979).

Dyson's comparison of Feynman to Jof the Juggler will strike a chord with you. Read the whole book, though. It's terrific.

Feynman's Rainbow: A Search for Beauty in Physics and in Life, by Leonard Mlodinow (NY: Warner Books, 2003).

Slim and slight, but I enjoyed reading about Mlodinow's brief, personal, and almost incidental encounters with Feynman. I marked a number of quotes as I read it, but didn't end up using them. It's that kind of book.

From Eros to Gaia, by Freeman Dyson (NY: Penguin Books, 1992).

Dyson's first-person recollection of Feynman's discovery of QED and the road trip that resulted in Dyson himself becoming Feynman's translator for the idiosyncratic theory.

Genius: The Life and Science of Richard Feynman, by James Gleick (NY: Pantheon, 1992).

This rivals Mehra's book, but with a bit less depth in both the physics and the personal sides of Feynman's life. It's still worth reading, but I didn't find myself consulting it during the production of this book.

Julian Schwinger: The Physicist, the Teacher, and the Man, edited by Y. Jack Ng (NJ: World Scientific, 1996).

Schwinger, though by far less famous than his counterpart, is remembered by those who knew him as fondly as Feynman.

"Most of the Good Stuff": Memories of Richard Feynman, edited by Laurie M. Brown and John S. Rigden (NY: American Institute of Physics, 1993).

Not just good, but great stuff, including Danny Hillis' stories of knowing, working with, and befriending Feynman. Hillis continues to do really interesting work; *The Clock of the Long Now* <<http://www.longnow.org/>> being one of his most recent projects.

No Ordinary Genius: The Illustrated Richard Feynman, by Christopher Sykes (NY: W.W. Norton, 1994).

This book has memories from Feynman's colleagues, family, and friends. It also has great illustrations and photographs.

Physics Today, February 1989.

A special issue devoted to Feynman, with articles by Freeman Dyson, Murray Gell-Mann, David Goodstein, Julian Schwinger, John Wheeler, and others. It contains many personal and professional memories.

QED and the Men Who Made It: Dyson, Feynman, Schwinger, and Tomonaga, by Silvan S. Schweber (Princeton, NJ: Princeton University Press, 1994).

This detailed account of how the problems in QED got swept under the rug successfully, as Feynman put it, is written for a technical audience. It has many great anecdotes as well, though, and many examples of how Feynman's speaking and writing style led to a greater understanding of the fundamental physics behind the problem.

Richard Feynman: A Life in Science, by John Gribbin and Mary Gribbin (NY: Dutton, 1997).

Beside Mehra's book, my favorite biography of Feynman, since it gives a general reader just enough of a taste of his physics to want to learn more.

Sin-itiro Tomonaga: Life of a Japanese Physicist, edited by Makinosuke Matsui and Hiroshi Ezawa, translated from the Japanese by Cheryl Fujimoto and Takako Sano (Tokyo: MYU, 1995).

The only English-language book about Tomonaga that I found readily accessible. Fortunately, it's very good!

Tuva or Bust, by Ralph Leighton (NY: W.W. Norton, 1991).

How Feynman almost got to Tuva. An adventure story with a sad ending—Gweneth also died before she could make it to Kyzyl—that will leave you happy.

* Why did we say “almost”? Well, literally dozens of other books and articles also helped build a picture of the century Feynman raced across on his way to becoming a myth. If you'd like to start down that path, I recommend the excellent *A Tale of Two Continents* by Abraham Pais and *The Making of the Atomic Bomb* by Richard Rhodes, both of which can provide you with background on Feynman's era in physics and the world.

