

QED

Reviewed by Allyn Jackson

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Peter Parnell

Performed by Alan Alda and Kellie Overbey
Vivian Beaumont Theatre, Lincoln Center

The Nobel Prize-winning physicist Richard Feynman was one of the great iconoclasts. Hard-headed and straight-talking, he insisted on the primacy of understanding things for one's self. When he dropped an O-ring seal into a glass of ice water during a 1986 press conference about the investigation into the explosion of the space shuttle *Challenger*—vividly demonstrating how the cold affected the seals and led to the disaster—Feynman exhibited a world view that sets no store by pronouncements of so-called experts but values instead a direct encounter with the facts, merciless as those facts might be. This relentless rationality did not lead him to cynicism; on the contrary, Feynman had an impish, buoyant personality that was fueled by childlike awe over the beauty of nature and the mysteries of life.

The play *QED*, which opened in Los Angeles in the spring of 2001 and is running in New York at least until early June 2002, attempts to give a sense of who Feynman was, in all his many dimensions. *QED* differs from other plays with scientific and mathematical themes, such as *Arcadia*, *Copenhagen*, *Breaking the Code*, and *Proof*. The first two come under the genre of the theater of ideas, and the other two under the genre of drama; *QED*, by contrast, is a character sketch. The double entendre of the play's title—it could refer to quantum electrodynamics, of which Feynman was a founder, or to *Quod erat demonstrandum*, which traditionally ends a mathematical proof—is apropos: Feyn-

Allyn Jackson is senior writer and deputy editor of the Notices. Her e-mail address is axj@ams.org.

man was a physicist with a mathematician's uncompromising sense of rigor, which comes through strongly in the play.

Essentially a monologue, *QED* was written by Peter Parnell and draws on Feynman's many biographical writings. Ralph Leighton, a friend of Feynman's and author of *Tuva or Bust! Richard Feynman's Last Journey*, served as a creative consultant for the play, and Tom Rutishauser, Feynman's old drumming buddy, coached actor Alan Alda in the part. Those familiar with such Feynman classics as *Surely You're Joking, Mr. Feynman!* or *What Do You Care What Other People Think?* will find that nearly every bit of *QED* follows closely such works. This approach has the advantage of presenting many of Feynman's best stories largely the way he told them and the disadvantage that many audience members will have heard them before.

The action takes place in Feynman's office at Caltech during a day in 1986. On the blackboard is the Feynman motto: "What I cannot create I do not understand." Feynman was not so self-centered as to assert that anything created by someone else is meaningless to him. What he meant is that understanding comes not from passive acceptance of information but instead arises from a creative struggle with ideas. In the play he talks about how, when he would learn some piece of physics, he would always have to recreate it for himself in some way. "I don't trust the experts," he declares.

Through the course of the play, Feynman flits from one era of his life to another. He talks about his work on the Manhattan Project, which resulted in the world's first atomic bomb, and how his time at the project site in Los Alamos, New Mexico, was punctuated by weekend visits to his wife as she slowly died of tuberculosis. At one moment his office phone rings and it's the chairman of the committee investigating the *Challenger* disaster; at the

next ring it's his friend Ralph Leighton, who is at the airport picking up a bunch of drunken Russians flown in as part of a scheme he and Feynman have hatched to get to the long-gone land of Tuva.

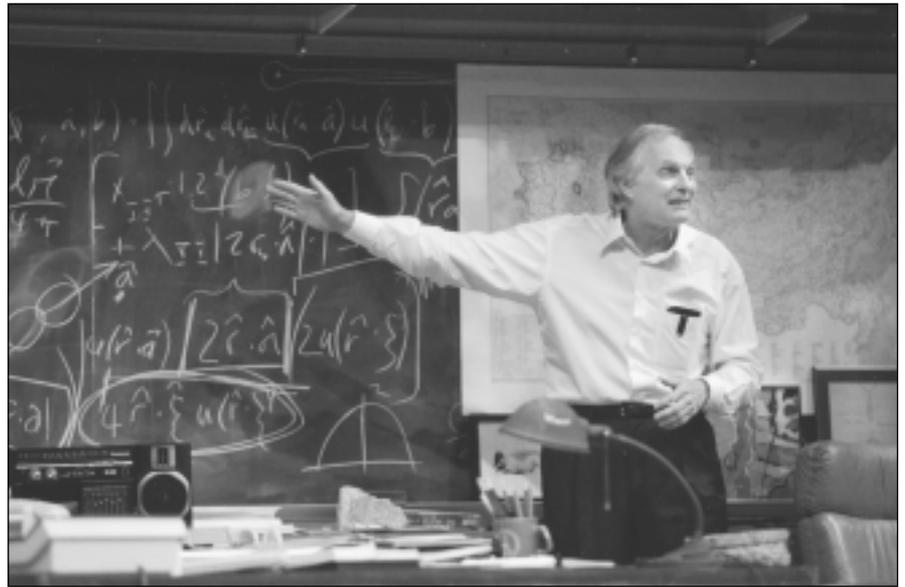
Feynman's well known love of women arises as a running theme. At one point he relates the story about the threatened closure of a topless dance club he frequented; he was the only patron willing to testify publicly on the club's behalf. "The newspapers had a field day!" he recalls, as they related the story of the Nobel Prize winner defending a topless club.

As the play proceeds, jumping from one topic to the next, the bits of science—how light bounces off a mirror, why probability is at the heart of modern physics—arise naturally, as if Feynman saw physics as one more facet of an infinitely interesting world. Along the way he explains the basic ideas behind Feynman diagrams and path integrals (although these names are not used).

At the time of the play Feynman has had a relapse of the cancer that would kill him a year and a half later. He has read a research paper, written by one of his doctors, that discusses a little-understood, experimental method for killing off tumors. On the phone with the doctor, Feynman suggests an explanation for why the method should work. The doctor asks whether Feynman is trying to reinvent all of medical science. "You bet I am!" Feynman retorts with his characteristic hubris. On the phone later with another doctor, Feynman says he wants to be awake if death should come to him on the operating table; he wants to "be there" for his own death. "Wouldn't that be a great experiment?" he asks.

Feynman's infectious curiosity and sense of wonder, mixed with his irreverence and flair for showmanship, make him a natural subject for a one-man show, and Alan Alda plays the part with relish. As the monologue jumps around, Alda's expert sense of timing helps but cannot quite overcome the incoherence of the script. Also, the herky-jerky changes of topic tend to drain the pathos from Feynman's ruminations on death, both his own and that of his first wife.

Apart from Feynman, there is one other character who appears on stage, a fictional student named Miriam Field (played by Kellie Overbey). Infatuated



Alan Alda plays world-renowned Nobel Prize-winning physicist Richard Feynman in Peter Parnell's play *QED*, at the Lincoln Center's Vivian Beaumont Theater in New York City. Photo credit: Craig Schwartz.

by her charismatic and famous teacher, she now and again in the course of the play knocks on his door and asks to see him. At the beginning of the second act Feynman, who was a proficient amateur drummer, returns to his office after performing in a student production of *South Pacific*. Miriam again turns up at his office, this time slightly tipsy after the postperformance party. With Feynman clad in his costume of a long red robe and headdress with enormous orange feathers, the two cut loose and dance wildly around the stage before collapsing in laughter. The dramatic purpose of this bit of physical action is to draw Feynman out of the depression to which he had begun to succumb after brooding about his cancer and the death of his first wife; after this episode he calls his doctor to say that yes, he will go through with another operation after all. But his turnaround seems too pat and is at odds with Feynman's unsentimental view of life. As a result, the catharsis the playwright seems to be reaching for does not occur.

Still, *QED* makes for a thoroughly enjoyable evening in the company of one of the great physicists and one of the extraordinary personalities of our time. This positive portrayal of a scientist in love with his work and with life may help dispel negative perceptions about scientists and mathematicians. The play shows that, far from being deadening and cold, a life of the mind can be full of wonder and adventure. *QED* manages to be a paean both to rational thought and to the sheer joy of life.