My encounters with Feynman

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Probably my first encounter with Richard Feynman was when I was born in Los Alamos in 1944. I believe I was the first non-native American to be birthed there and, since the location was not yet public, my birth certificate simply gives the location as "Sandoval County rural." Needless to say, I don't remember that time, but both my parents knew Feynman. Indeed, a few years earlier Feynman and my father performed the famous sprinkler in a carboy experiment. My dad remarked about this incident that when something goes wrong, theorists are very good at quickly disappearing and leaving him to clean up the mess. This is documented in my fathers article in the American Journal of Physics. 73 (3): 198.

Feynman had a reputation for being able to open people's file cabinets. My mother Lela told me on various occasions that she was sure he couldn't open hers because she used an obscure number that no one could guess. But on hearing from Feynman how he got his reputation, I'm not sure she should have been so confident.

I next encountered Feynman as an undergraduate at Caltech in 1962. The mandatory first two years of physics were based on the Feynman Lectures, initiated the year before our class. We had the advantage over the first class of having a fairly complete draft of the written lectures. The previous students were taught directly by Feynman without the written material and had a considerably harder time with it.

For us, Feynman was an occasional guest lecturer the first five quarters of the course, but he did return to present the quantum mechanics section. This remains the basis for essentially all my understanding of quantum mechanics. Beyond that, all is technical detail.

After Caltech I went to Stanford for graduate school and chose to work at SLAC with S. Drell as my advisor. This was a very exciting time with the discovery of deeply inelastic electron scattering hinting at a point-like substructure for the proton. Feynman quickly realized the importance of this and visited us frequently as he developed his picture of partons.

In 1983 Feynman and I both attended an EST conference on Numerical Simulations of Quantum Systems. At this time lattice gauge theory was rapidly expanding into a major tool. Also Feynman had recently been speculating

on the possibility of quantum computers. This was a lively meeting, and the organizers treated us exceptionally well. Feynman chaired the session at which I spoke.

The final time I met Feynman was in 1985 in Kyoto when we both participated in a meeting titled "The Jubilee of the Meson Theory." This was in celebration of 50 years of Yukawa's meson theory. Feynman was a major attraction of the opening memorial session.

While I only met Feynman on these few occasions, his style of physics has had a strong influence on me. In particular, I try to follow his advice that if you can't explain something in simple terms, you do not understand it yourself.