Richard R. Silbar
March 2020

Morton M. Sternheim (1934-2023)

I first learned about Mort Sternheim in the late 1960's. When he was a postdoc at the Brookhaven Lab on Long Island, he and Auerbach developed a computer code for the scattering of pi-mesons from atomic nuclei. It became widely cited among those of us involved in the medium-energy physics community. But I only met him after Louis Rosen, head of the Los Alamos Meson Physics Facility (LAMPF) invited him to come for summer visits beginning around 1970.

Naturally, I introduced myself and we began to talk about physics matters of mutual interest. This was in spite of the fact that his office at LAMPF was about three miles south of mine in T-Division. To cut to the chase, these talks resulted in 21 reviewed journal papers and invited talks, starting in 1972. Our collaborations lasted about 15 years. Some of these papers had just the two of us as co-authors, but many involved also other colleagues and Mort's students. Theis work is best described as covering the gamut of what was then called medium-energy nuclear physics. I could, of course, be a bit more long-winded now and go into details about what we wrote, but that might be a bit boring for most of you. It is perhaps better that I focus more on our social interactions.

In what follows there will be a lack of detail. The reason for that is that Mort began, about a year ago, to write up short essays (typically about four pages long) on various aspects of his life.[1] There are about fifty of Mort's "chapters," of which I have seen only twenty or so. In the paragraphs below I will sometimes refer to one of them so you can, if you wish, fill out the material. I have put the ones I cite up on my personal web page, which you can retrieve to get a more complete story.[2]

During most of the time that we were working together, Mort came to LAMPF for summer visits, but there was one year that he (and family) spent an academic sabbatical (1971-72) in Los Alamos. They rented a house on Barranca Mesa, not far from where Maggie and I lived. This was when Mort and family took up skiing,[3] mostly at the nearby Pajarito Mountain Ski Area, 25 minutes away. I even enticed him to try out squash at the local YMCA, but I don't think he enjoyed it all that much. The skiing, however, remained a family activity for a long time, even after they returned to Massachusetts.

There were also times, when I was posted on the East Coast, that Maggie and I could visit them in Amherst. Indeed, I was able to spend a semester teaching at UMass in 1985, which, apart from the sociality, also resulted in a paper or two.

After about 1973 Mort, while still working with me from time to time, shifted his interests to matters of teaching. As a result of one of his courses, he and Joseph Kane wrote a textbook, *Life Science Physics*, for biology majors. (At that time, pre-med students had to pass a physics course to get into medical school; that may still be true today.) This book, published finally in 1978, was pretty successful, going through various revisions, translations, and supplementary materials.[4] It was also later converted into a calculus-light text, now entitled just *General Physics*, that came out in 1985 and in revisions after that.

It was also about this time that small personal computers (think IBM PC) arrived on the scene. Mort

1 Mort talked me into *also* doing little essays, "for our grandchildren," but I haven't been as prolific as he.
2 They can be accessed at pages.swcp.com/~silbar/MMSessays/.
3 SkiingWithKids.pdf.
4 LifeSciencePhysics.pdf.

bought one in 1983 and immediately was hooked by them and the possibility that they could "talk" to one another. This was still before the Internet became widespread, and most of the communication between desktop computers then took place through clunky and slow modems that used the land-line phones. Probably with some help from Helen, his wife, an electrical engineer,[5] he learned how to use those new-fangled machines. He eventually became, I believe, the go-to PC guy in the UMass physics department and to some extent in the nearby area. He was a co-founder of the Pioneer Valley PC Users Group. He set up, and became what was then called the "sys-op," for a Bulletin Board Service with phone lines for connection to a server computer from a distance. That BBS provided its users with, among other things, setting-up advice, e-mail, and access to shareware programs.[6]

Mort's interest in teaching, together with his fascination with the desktop computers, extended to high school physics teachers. These people, usually isolated and working alone, often needed help in how to use their PCs and Apple computers in their classrooms. Thus the BBS morphed into the STEM ED Institute,[7] which Mort and Helen ran, along with participation by local teachers. It was well supported by grants from the National Science Foundation and local universities (and school boards?) for more than twenty years.

Apart from his physics and professional interests, Mort was an avid photographer and a traveler. Much of their earlier family travels were undertaken back when they had a house trailer that they could haul behind their car, mostly on trips in the U.S. and Canada. After they finally sold that trailer, they graduated to a large number of Road Scholar trips. In fact, it was on one of those – to Santa Fe in the summer of 2015 – which was the last time we saw Mort and Helen face-to-face. In fact, it *has* to have been Mort who took this photograph of Helen, Maggie, and me, just outside the museums at Museum Hill.

Since that time he and I have been in frequent touch by his favorite pastime, the internet. Hey, we had a great ride together!

5 WomanEngineer.pdf.
6 Fido&STEM.pdf.
7 STEM stands for Science, Technology, Engineering, and Mathematics, and the ED, of course, for Education.