Some Memories I Have of Chris Byrnes Steve Morse Yale University and National Academy of Egineers Mar. 26 2010

It is times like this that one thinks about all the good times one has had with someone who is no longer with us. And I've certainly had lots of good times with Chris Byrnes. I can't remember exactly when I met Chris - but I certainly can remember the ponytail and the very bright young mathematician who was so very anxious to learn everything there was to know about control systems. Well he certainly learned a lot. Over the years Chris worked on a very impressive wide range of topic with a huge number of different people including even me. His legacy will not be forgotten: zero dynamics, feedback stabilization, output regulation and the FBI equation with Alberto Isidori; bringing center manifolds to control theory; pacification of nonlinear systems with Alberto Isidori and Jan Willems; adaptive stabilization with Jan Willems, and more recent work on stochastic realization with Anders Lindquist - to name just a few pieces of his high impact work which come to mind.

And then there is the other side of Chris – the king of the one liner. He always use to say "My Moma told me just before making some wise crack which always made its point. I think Chris was the originator of the idea of the LVP Award - I'll let Art Krener explain this.

I think the times I really got to know Chris best were when the two of us spent some quality time traveling together. The first trip I can remember was in the early 1980s when we bused across the Sinai desert with the Roger Brockett family to Cairo and then on just with Chris on to Luxor; I really got to know Chris on that trip - I even learned that he wore the same size shorts as me: he must have because he was wearing a pair of mine that I had loaned him to deal with the 115 degree F heat.

Art Krener can tell you about a memorable trip by train from a workshop in Bielefeld, Germany to Rome another workshop in Rome. It was during this trip that I learned of the true richness of Chris' vocabulary.

And speaking of trips, who could forget our trip to Sorpron, Hungry via Warsaw. It was during a long layover at Warsaw airport that I first learned how able Chris was to get by with less. To kill time during the layover, Chris somehow managed to find a deck of cards and promptly started to deal out poker hands to the group of us. I recall we started betting zloty which of course we didn't have but Chris suggested that we make believe which we did. I had a great hand and bet a lot of zloty, but so did everyone else. When we showed our cards to my great amazement it was clear that my four aces were tied with Chris' four aces....you see it was a pinochle deck!

I spent quality time with Chris at many other places all over the world including a quite memorable dinner with others including Anders Lindquist at Sabatini's in Rome on his birthday, at least a million AFOSR contractors meetings at WPAFB and elsewhere, at his favorite Italian hangout; Pensione Manfredi on 61 via Marguta in Roma, in Stockholm, on a long weekend looking at underwater Roman ruins at Anzio with Alberto Isidori, on Capri, in Tokyo looking for presents for his children, in his apartment in Cambridge, Massachusetts with Bostwick Wyman and others drinking cappuccino proudly prepared by Chris with his Pavoni machine. I'm sure that if I think harder I will remember more quality times with Chris. What I am absolutely certain of is that I will miss him greatly as will the entire control systems community.