

Giancarlo Moneti, November 2, 1931 –

Giancarlo Moneti came to Syracuse University in August, 1968 to take up a position in the experimental High Energy Particle physics group. He came to fill the void left by the sudden death of Jack Leitner at the age of 36. In 1961, Giancarlo had come on a two year leave from Rome to Brookhaven National Laboratory where he worked on various particle experiments and met Jack Leitner and Ted Kalogeropoulos. So, when he came to Syracuse, Giancarlo already knew the group which also included Nahmin Horwitz, Marvin Goldberg, and Erich Harth. Giancarlo's coming made it easier for the group to continue to receive support from the NSF. This was an exciting time after the discovery of parity violation and a host of new particles that could be classified, but did not fit into any consistent theoretical scheme.

Giancarlo was born in Rome, Italy on November 2, 1931. His father's family came to Rome from Tuscany in the 17th century to build a construction business, in the course of which they became associated with the Vatican. Thus, there were architects and engineers in the family. But, on his mother's side, there were also teachers. Her father taught mathematics to Pope Pius XII and was in the Circolo di San Pietro (St. Peter's Circle) an important group connected to the papal court. His father, Pietro Moneti, began a career in journalism, but later he became a distributor of automobiles and a dealer in business machines. Giancarlo was the youngest of eight siblings, four boys and four girls. Three of the boys became business men and three of the girls became librarians. The oldest of the girls became director of the Library of the University of Pisa. A sister of his Mother taught mathematics and history of mathematics in a college in Rome. This aunt nurtured Giancarlo's interest in mathematics and helped him to appreciate some advanced topics. Thus we see him growing up in a moderately important family with interests in business, learning, and in the Papal court.

After graduating from the Lyce'e in September 1945, Giancarlo entered the University of Rome where he studied mainly mathematics and physics. In 1949, he began his serious study of physics (theoretical). On the basis of his dissertation, *On the Distribution of Electric Charge in the Nucleus*, in 1954 he received the Laurea degree (between an MS and a PhD in the US). During this time, he met Annamaria and they were married in Assisi on June 30, 1955. At the time, both were devoted to St Francis as they appreciated his devotion to those in poverty. However, the study of physics can be disrupting and now neither of them is devout.

Then Giancarlo began his research career in earnest and surprisingly, it turned out to be an experimental career. A friend and colleague, Romano Bizzarri, convinced him to accept a job as an assistant in the Department of Physics at the University of Rome to do experiments on cosmic rays. There he worked with nuclear emulsions in the group headed by Edwardo Amaldi and then with a multiplate cloud chamber that was exposed to cosmic rays on the Matterhorn. With it they measured the lifetime of the Lambda and Lambda bar - the lightest baryons. Then Giancarlo began his research career in earnest and surprisingly, it turned out to be an experimental career. A friend and colleague, Romano Bizzarri convinced him to accept a job as an assistant in the Department of Physics at the University of Rome to do experiments on cosmic rays. There he worked with nuclear emulsions in the group headed by Edwardo Amaldi. They exposed a multiplate cloud chamber to cosmic rays on the Matterhorn in Switzerland. With the results of this exposure, they were able to measure the lifetime of the Lambda and Lambda bar. In 1957 he became director of the cryogenic laboratory at Frascati while keeping his position at Rome. At Frascati, Giancarlo installed a Hydrogen liquefier that he had bought in Grenoble. He then used it to build liquid Hydrogen targets for the Frascati electro-synchrotron. With the Frascati Helium liquefier, he provided liquid Helium to cryogenic laboratories throughout Italy. Thus, he became

a specialist in low temperature techniques. For a ten year period, beginning in 1958, he was also leader of the bubble chamber group in Rome. Stimulated by the presence of the He liquefier, Giancarlo thought of and built a bubble chamber using He instead of H. Giancarlo and a theoretical colleague, Gianni Jona, thought of using the Helium bubble chamber to measure the polarization of scattered protons. The He bubble chamber was built in 1960 and installed at an accelerator at CERN.

Also at this time, Giancarlo received the degree Libera Docenza which signified that he had published at least five papers. It allowed him to teach a university course without pay and required him to do so at least once in five years. He was also appointed Assistant Professor, with tenure.

In February 1961, before the Helium chamber was exposed at CERN, Giancarlo left Rome for a two year leave at Brookhaven. At Brookhaven, he joined a group with Nick Samios, Jack Leitner, Ted Kalogeropoulos, among others. He worked at the construction of a Hydrogen bubble chamber and spent almost two years using it on a K⁻ beam. They looked for K-K bar production. Giancarlo observed a bump in the yield vs the KK-bar mass that did not fit the expected curve. This he identified as resulting from the production of a new particle, the Phi, whose mass was determined. While at Brookhaven he also participated in the discovery of the Xi* and measured the lifetime of the Lambda and Xi.

In December of '62 he returned to Rome because his mother was dying. However, he continued to work on the data from the Brookhaven experiments with Jack and Ted and in '63 he returned for a summer visit. With Ted, he became spokesman for the deuterium bubble chamber which was exposed to an antiproton beam, to measure the spin of the Phi. They also studied the production of a three pion state which has a peculiar Dalitz plot that is still unexplained.

He began to teach a course on the history of physics in Rome in 1963. Then after Jack's death in 1967, he was offered a position in Syracuse and he arrived with Anna Maria and five children in August, 1968.

In Syracuse he completed his work with Ted and began his leadership role with Nahmin Horwitz and Marvin Goldberg. They collaborated in a number of experiments at Brookhaven. In 1974-5, Giancarlo spent a year at CERN working on the ISR (intersecting storage rings). There he designed a new form of Transition Radiation Detector. Then in 1975, with Nahmin and Marv, he began to work with CLEO at Cornell. (CLEO was a six university collaboration using results from the electron-positron collisions in the Cornell Electron Synchrotron Ring, CESR.) An inner proportional chamber was built at Syracuse. He was spokesman for CLEO in '86-'87. During '84-'90, a muon identifier for a new CLEO detector was built by Syracuse at an Ainsley Drive facility with Lou Buda as the chief technician. The main purpose of the CLEO experiment was then the study of charm meson production. Giancarlo continued to work at CLEO and on charm fragmentation until his retirement and beyond. His study of charm fragmentation on the CLEO data was published in 2004.

Giancarlo also has had an active life in the Syracuse community. He has been a strong active member of SEUNA (Southeast University Neighborhood Association) which has been important in protecting the living conditions in the university vicinity. Politically, he has been a member of the Syracuse Peace Council, one of the oldest anti-war organizations, a member of the ACLU, and active in the local Democratic Party. He has broad interests in music. He is a member of the Board of Syracuse Friends Chamber Music and a former member of the Schola Cantorum of Syracuse. In consecutive periods, he was treasurer of both organizations.

At this time, summer 2012, Giancarlo continues to live in Syracuse with his wife Annamaria. He comes in to his office to keep up with current events in physics and to interact with his colleagues.