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Obituary of Nahmin Horwitz (1927–2012)

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Nahmin Horwitz came to Syracuse University in September 1960 and remained on the faculty until his retirement in 2006. In retirement he continued his research on charm research with CLEO. This program was shut down in 2012 shortly before his death.

After returning from service in the Navy, Nahmin completed his undergraduate work at Western Reserve and in 1949 he went to the University of Minnesota for graduate work in physics. There joined a cosmic ray group under Ed Ney. Their problem was to design a coil for a magnetic field to detect heavy nuclei in cosmic rays. Nahmin's job was to build a small Cerenkov counter using a Geiger counter telescope as a trigger for alpha particles. It resulted in the first demonstration that Cerenkov radiation is proportional to Z2. In the course of receiving his PhD in 1955, Nahmin spent a summer at Los Alamos building a diffusion cloud chamber and a summer at NRL building a power supply for Joe Weber who beginning to plan his search for gravitational waves.

Through Ed Ney, Nahmin got a job with Ed Lofgren who was in charge of building the Bevatron at UC at Berkeley. Nahmin's office mate at the Bevatron was Joe Murray, a recent Cal Tech graduate. Together with other members of the Lofgren Group, they designed an experiment to detect anti protons produced in the Bevatron. Unfortunately, Emilio Segre also proposed an experiment, and the scheduling committee awarded them first crack at beam time. They did indeed observe anti protons and were awarded a Nobel prize. Probably Nahmin's most important activity at the Bevatron was to assist Joe Murray, who 'invented' and built the world's first high energy particle separator. External beams from the Bevatron consisted mainly of pi mesons with small 'contaminations' of anti-protons and K mesons. Many counter and bubble chamber experiments would succeed only if the copious pi mesons could be filtered out. This could be done by passing the beam through a mass spectrometer. But unlike the table top mass spectrometers familiar in the laboratory, these would involve thousands of amperes of current and thousands of volts/meter electric fields. He spent five years at the Bevatron and

would have remained there, had he not receive an offer to join the faculty from Syracuse University.

At Syracuse University, Nahmin worked with Jack Leitner and with Ted Kalogeropoulos. They were part of the experiment in 1964 that discovered the Omega minus, the strangeness 3 particle that completed the 8-fold diagram of SU(3). After Jack died unexpectedly in 1967 at the age of 36, Nahmin worked with Ted Kalogeropoulos on an experiment using spark chambers to look for pp-bar annihilation at rest. They claimed evidence for that annihilation, but it was not believed by the community. Then followed a number of years in which Marvin Goldberg, Giancarlo Moneti, Ted, and Nahmin worked on a big project at Brookhaven from which nothing exciting emerged. In 1978, SU was invited to join a group (CLEO) of six original collaborators at Cornell (Cornell, Rochester, Harvard, Vanderbilt, Rutgers, and Syracuse) to study colliding beams of electrons and positrons. Nahmin was assigned the job of building a cylindrical multiwired proportional chamber which was part of a large general purpose detector. An early important discovery was the Upsilon 3S at an energy above 10 Gev which was the first b-bbar resonance to decay via strong reactions. The decay is usually into B and B-bar mesons and pions, so that using it, CLEO was able to measure the lifetime and mass of the B meson. In 1981, Nahmin was elected spokesman for the collaboration. When B factories were built CLEO switched to a study of charm physics that lasted until 2012.

Nahmin served as acting chair of the Physics Department for 1973-74 and was a respected member of the University Senate where for many years he was head of the Budget Committee. When he retired, he received a special commendation from the Senate. An avid tennis player, Nahmin was paralyzed by an accident on the

court and he died a few months later. He is servived by his wife, Leah, four children and three grandchildren.

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