

Remembering Owen Chamberlain

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Abstract of Invited Talk at SPIN2006

Owen Chamberlain, who shared the 1959 Nobel Prize with Emilio Segrè for the discovery of the antiproton, died of complications from Parkinson's disease on 28 February 2006. He was 85 years old. Owen had a long-standing and deep interest in spin physics, and for over 28 years he served as a founding member and then honorary member of the international organizing committee for the spin physics symposia that preceded SPIN2006. I had the privilege and the pleasure of working closely with him for almost fifty years - first as a student, then as a post-doc, and finally as a faculty and research colleague. In this talk I will briefly review his scientific career with special emphasis on his contributions to spin physics.

He and his colleagues at Berkeley pioneered the development of polarized proton targets in high-energy physics scattering experiments, and he made extensive use of them to study the fundamental interactions between nucleons and between nucleons and pions. In the early and mid 1960s he used polarized targets with great success to unravel the spin structure of pion-nucleon scattering amplitudes. These experiments provided essential input into the phase shift analyses that uncovered a plethora of N^* and D^* resonant states. Then later in this same decade he and his group applied them to study possible breakdowns of time-reversal symmetry in electro-weak processes, and to determine the relative parities of hyperons. In the 1970's he was the spokesman of the E-61 experiment to study the spin dependence in high-energy π -p and p-p interactions at FNAL. After his retirement in 1989 he continued to involve himself in the experimental work of our group, and in the late '80s and early '90s he played an active role in making a precision test of the Standard Model of Electro-Weak Interactions using highly polarized electron beams at SLAC to measure the left-right asymmetry in Z^0 production.

Over the years he dedicated himself not only to doing forefront physics, but also to making technical innovations that expanded experimental opportunities. He was a very versatile scientist, a great teacher, and a tireless advocate for peace and social justice.