



Kurt Symanzik

Kurt Symanzik was born November 23, 1923 in Lyck, East Prussia. He grew up in Königsberg, but because of the war he could only begin to study physics at the age of 23, when he entered the Technical University of Munich. He shortly moved to Göttingen and became a student of Heisenberg. There Symanzik encountered two young colleagues, H. Lehmann and W. Zimmermann, with whom he developed both close friendship and scientific collaboration. This group was later dubbed the “Feldverein” by W. Pauli, when it had become an important influence in theoretical physics.

In 1954, Symanzik completed his doctoral thesis, “On the Schwinger functional in quantum field theory.” The deep insights in this work and the technical skill in their implementation set the scene for a series of classic papers in diverse fields of theoretical physics; all these papers share conceptual clarity combined with overwhelming technical ability. The best known work from the period in Göttingen was the famous LSZ “reduction formula” to express scattering cross sections in terms of vacuum expectation values of quantum fields. Today this formula can be found in most books on elementary particles or quantum fields.

From 1955 to 1962, Symanzik worked in many departments in both the United States and in Europe, including the Institute for Advanced Study, the University