(or their Fourier transforms for large space-like momenta). This interest was further increased by the advent of new experiments on deep-inelastic lepton-hadron scattering at SLAC, and by Bjorken's prediction and the experimental indications of scaling[12]. The theoretical framework for the discussion of products of currents at short distances was provided by Wilson's operator product expansion[13]. Although Wilson had emphasized that, in general, one does not expect naive scaling the experimental indications of Bjorken scaling motivated the development of phenomenological scaling models. One approach was to abstract from free field theory, or interacting field theories with an ultraviolet cutoff, the short distance structure of current products [14], the other was to hypothesize the existence of point-like constituents of hadrons (partons).[15] Assuming a quark field theoretic model, or that the partons had the quantum numbers of quarks many relations and sum rules were derived. At present the experimental data is consistent with spin-one-half[16] quark-like constituents. All attempts to provide dynamical explanations for these models were unsuccessful.

Meanwhile significant developments of the renormalization group techniques were made. The equations that determine the change in momentum scale of massive field theories were derived by Callan[17] and Symansik.[18] These equations, for large space-like momenta, reduce to the differential form of the renormalization group equations already derived by Orsiannikov in a little noticed paper in 1956.[19] In addition it was realized that the renormalization group approach is the key to asymptotic behavior of the coefficient functions in Wilson's