To do this one only needs to know the functions which determine the change in coupling constant and scale of fields due to a change in μ. In particular the asymptotic form of the amplitudes (for large space-like momenta) can be related to amplitudes at some fixed momenta and an effective coupling constant (which would be determined by performing the subtractions at asymptotic values of the momenta). The asymptotic value of this effective coupling constant will determine the ultraviolet behavior of the theory. It is given by the zeroes of a calculable function, which are called fixed points of the renormalization group.

For about ten years there was little interest in the renormalization group.[10] This was probably due to the following reasons. First the renormalization group provided information about Green's functions for large space-like momenta, which are of no direct physical interest. This approach is much less informative about Minkowski momenta and on-shell amplitudes - since we lack an extension to this region of Weinberg's powerful theorem.[9] Second it was soon discovered, in all the cases investigated at the time, that the ultraviolet behavior was not calculable using perturbation theory. Thus it appeared that the renormalization group provided a framework in which one could discuss, but not calculate, the asymptotic behavior of amplitudes in a physically uninteresting region.

This situation has changed in the last few years due to the following developments. First there was an increased interest in the matrix elements of local currents at short distances[11]