EIKONAL APPROXIMATION AND INELASTIC PROCESSES IN QUANTUM FIELD THEORY MODEL [*])

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In this paper a connection betwee elastic scattering amplitude and inelastic process apmlitudes with production of a soft mesons is studied in the $L_{int} = g : \psi^2(x) \, \varphi(x) :$ -model by means of the funotional integration method in quantum field theory. It is shown that it is possible to represent the inelastic process amplitude in terms of the eikonal elastic scattering amplitude in a certain region of the momentum of the produced particles at high energies[1], and so that the cross section of n-particle emission has a character of a Poisson distribution.

References:

1. B.M.Barbashov, S.P.Kuleshov, V.N.Pervushin, A.N.Sissakian. JINR Preprint E2-4955, Dubna (1970).

*) Related also to session XII.