Quantum Chromo-dynamics. JAY HYUN JO, Department of Physics and Astronomy, SUNY Stony Brook, NY — Quantum Chromo-Dynamics (QCD) is a theory of the strong interaction, a fundamental force describing the interactions of the quarks and gluons. It is the SU(3) gauge theory of the current Standard Model for elementary particles and forces. In this talk, starting from describing differences between Quantum Electro-Dynamics (QED) and QCD, general pictures of QCD will be discussed. I will review gauge theories of QED and QCD, and features of QCD such as asymptotic freedom and confinement problems. Also, experimental results, such as deep inelasting scattering, hadron production in $e^+e^-$ scattering, and jet cross section in positron-anti positron collisions will be addressed.

References:


