



THE CHINESE UNIVERSITY OF HONG KONG
Department of Physics
SEMINAR

Jets in Soft-Collinear Effective Theory

by

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ALL INTERESTED ARE WELCOME

Abstract

The proton-proton collisions at the Large Hadron Collider (LHC) produce millions of strongly interacting particles in the form of jets. For these kinds of final states, the Soft-Collinear Effective Theory (SCET) is an appropriate effective field theory to systematically improve the perturbative calculations, the convergence of which can be seriously undermined by the large hierarchy of energy scales involved. Further complications, however, arise when applying SCET to jet algorithms, which are used by experimentalists to concretely define what a jet is. In this talk, I will first give a brief review of SCET, and then discuss how to consistently apply it to some typical jet definitions.