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LARGE TRANSVERSE MOMENTUM
AND JET STUDIES

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ABSTRACT

Large Transverse Momentum and Jet Studies

Particle production at large transverse momentum is found to exceed by a large amount what is expected from the collision of two extended objects about 1 fermi across. The pertinent effects are associated with collisions among hadron constituents which materialized as jets of particles. Experimental evidence for a jet configuration is reviewed. A phenomenological analysis of the key features of jet fragmentation is then presented. It is based on the scaling properties of hadronic interactions. Theoretical models are reviewed and in particular the relevance of quantum chromodynamics is assessed. The paper ends with a discussion of future prospects at present machines and also considers the use of present synchrotrons in their collider version.

TABLE OF CONTENTS

Foreword

1. Introduction
2. Single-particle Inclusive Data
 - Parametrisation of the data - nuclear effects - other beams
3. Correlation Data: Jet Structure
 - The SPEAR jets - transverse jets in high- p_t events: the trigger side - the away-side jet - the longitudinal jets
4. Phenomenological Study of the Transverse Jets
 - A very simple model - trigger bias - jet fragmentation - jet-triggers - momentum in the trigger-side jet - what is the trigger-side jet - multi-particle triggers - the away-side jets
4. Hard-scattering Models: General Features
 - General form - initial and final state interactions - effects of transverse momentum of constituents - effects of breaking of Bjorken scaling - the dimensional counting rule
6. Constituent Interchange and Other Models
 - CIM and quark fusion - angular dependence - proton production at large p_t - quark-quark scattering
7. Quantum Chromodynamics
 - QCD mechanisms - direct photon production at large p_t - quark fragmentation
8. Away-side Correlations
 - Trigger-bias effects - rapidity distributions - quantum-number effects
9. Future Prospects
 - An approach to quark-quark scattering - refining the jet picture - large p_t production at collider energy