

INTERNATIONAL CONFERENCE ON HIGH ENERGY PHYSICS  
AMSTERDAM 2002

Abstract ID=ABS229  
QCD: Hard interactions  
Experiment: DELPHI  
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# Measurement of $\alpha_s$ from event shapes with the DELPHI detector at LEP

DELPHI Collaboration

## Abstract

Event shape distributions are determined from the data taken between 183 and 205 GeV. From these the strong coupling  $\alpha_s$  is extracted in  $\mathcal{O}(\alpha_s^2)$ , NLLA and matched  $\mathcal{O}(\alpha_s^2)$ +NLLA theory. Hadronisation corrections evaluated with fragmentation model generators as well as an analytical power ansatz are applied. Comparing these measurements to those obtained at and around  $M_Z$  allows a combined measurement of  $\alpha_s$  and a test of the energy dependence of the strong coupling.

Version 0  
Date 2002-04-25 : 10:05:58'