Fragmentation in e^+e^- Annihilation

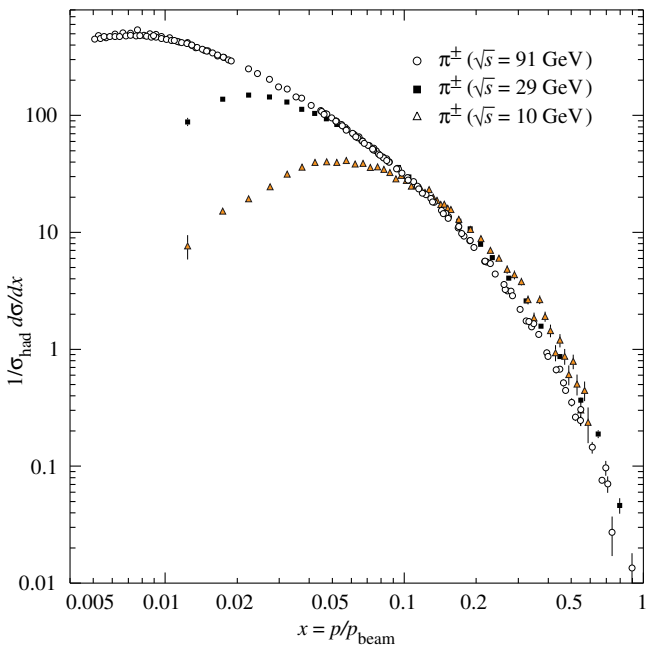

Figure 37.11: Fragmentation into $\pi^\pm$ in e^+e^- annihilations: Inclusive cross sections $(1/\sigma_{\rm had})(d\sigma/dx)$, with $x = p/p_{\rm beam}$. The indicated errors are statistical and systematic errors added in quadrature. Files of the data shown in this figure are given in `http://home.cern.ch/b/biebel/www/RPP00`

△: rate at $\sqrt{s}$ = 9.98 GeV; an overall uncertainty of 1.8%: **ARGUS**—H. Albrecht *et al.*, Z. Phys. **C44**, 547 (1989).

■ : rate at $\sqrt{s}$ = 29 GeV **TPC**—H. Aihara *et al.*, Phys. Rev. Lett. **61**, 1263 (1988).

◯ : rate for hadronic decays of the Z at $\sqrt{s}$ = 91.2 GeV **ALEPH**—D. Buskulic *et al.*, Z. Phys. **C66**, 355 (1995); **DELPHI**—P. Abreu *et al.*, Eur. Phys. J. **C5**, 585 (1998); **OPAL**—R. Akers *et al.*, Z. Phys. **C63**, 181 (1994); **SLD**—K. Abe *et al.*, Phys. Rev. **D59**, 052001 (1999).

(Courtesy of O. Biebel, Max-Planck-Institut für Physik, München, 1999.)

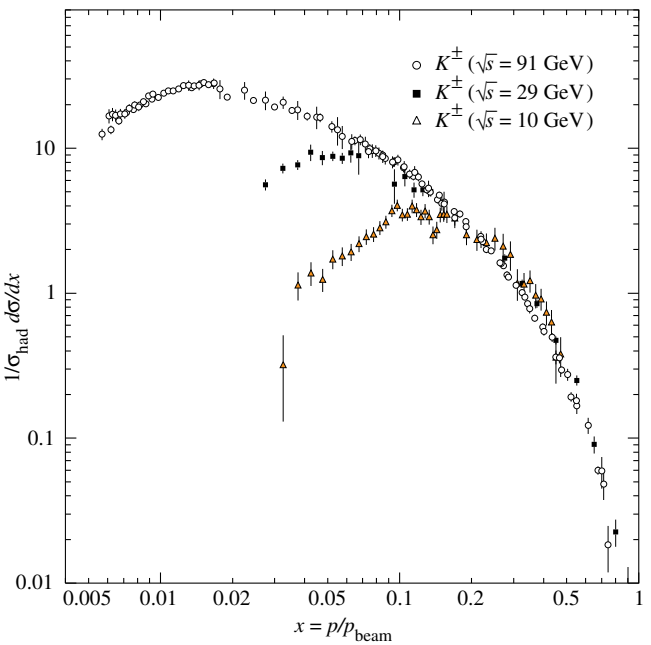

Figure 37.12: Fragmentation into $K^\pm$ in e^+e^- annihilations: Inclusive cross sections $(1/\sigma_{\rm had})(d\sigma/dx)$, with $x = p/p_{\rm beam}$. The indicated errors are statistical and systematic errors added in quadrature. Files of the data shown in this figure are given in `http://home.cern.ch/b/biebel/www/RPP00`

△: rate at $\sqrt{s}$ = 9.98 GeV; an overall uncertainty of 1.8%: **ARGUS**—H. Albrecht *et al.*, Z. Phys. **C44**, 547 (1989).

■ : rate at $\sqrt{s}$ = 29 GeV **TPC**—H. Aihara *et al.*, Phys. Rev. Lett. **61**, 1263 (1988).

◯ : rate for hadronic decays of the Z at $\sqrt{s}$ = 91.2 GeV **ALEPH**—D. Buskulic *et al.*, Z. Phys. **C66**, 355 (1995); **DELPHI**—P. Abreu *et al.*, Eur. Phys. J. **C5**, 585 (1998): **OPAL**—R. Akers *et al.*, Z. Phys. **C63**, 181 (1994). **SLD**—K. Abe *et al.*, Phys. Rev. **D59**, 052001 (1999).

(Courtesy of O. Biebel, Max-Planck-Institut für Physik, München, 1999.)

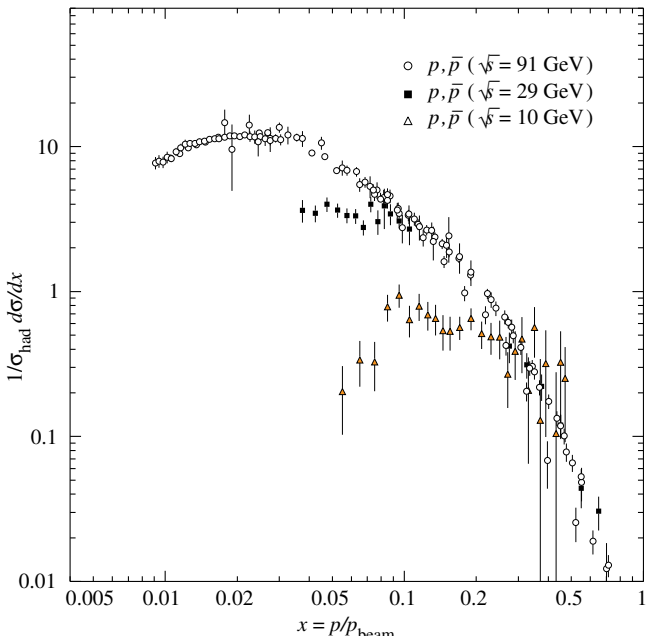

Figure 37.13: Fragmentation into $p\overline{p}$ in e^+e^- annihilations: Inclusive cross sections $(1/\sigma_{\rm had})(d\sigma/dx)$, with $x = p/p_{\rm beam}$. The indicated errors are statistical and systematic errors added in quadrature. Files of the data shown in this figure are given in `http://home.cern.ch/b/biebel/www/RPP00`

△: rate at $\sqrt{s}$ = 9.98 GeV; an overall uncertainty of 1.8%. This rate is obtained from the measured $\overline{p}$ rate by scaling with a factor of two: **ARGUS**—H. Albrecht *et al.*, Z. Phys. **C44**, 547 (1989).

■ : rate at $\sqrt{s}$ = 29 GeV: **TPC**—H. Aihara *et al.*, Phys. Rev. Lett. **61**, 1263 (1988).

◯ : rate for hadronic decays of the Z at $\sqrt{s}$ = 91.2 GeV: **ALEPH**—D. Buskulic *et al.*, Z. Phys. **C66**, 355 (1995); **DELPHI**—P. Abreu *et al.*, Eur. Phys. J. **C5**, 585 (1998): **OPAL**—R. Akers *et al.*, Z. Phys. **C63**, 181 (1994); **SLD**—K. Abe *et al.*, Phys. Rev. **D59**, 052001 (1999).

(Courtesy of O. Biebel, Max-Planck-Institut für Physik, München, 1999.)