TTP93-34
December 1993

HADRON RADIATION IN LEPTONIC Z DECAYS

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ERRATUM

As a consequence of an error in the FORTRAN code the numerical values of the predictions for the four fermion (quarks and leptons) final states have to be slightly modified.
Eq.(15) should be modified to

$$\begin{aligned}
\frac{\Gamma_{l\bar{l}u\bar{u}}}{\Gamma_{l\bar{l}}} &= 4\frac{\Gamma_{l\bar{l}d\bar{d}}}{\Gamma_{l\bar{l}}} = 4\frac{\Gamma_{l\bar{l}s\bar{s}}}{\Gamma_{l\bar{l}}} = 2.256 \times 10^{-4}\,, \\
\frac{\Gamma_{l\bar{l}c\bar{c}}}{\Gamma_{l\bar{l}}} &= 5.259 \times 10^{-5}\,, \\
\frac{\Gamma_{l\bar{l}b\bar{b}}}{\Gamma_{l\bar{l}}} &= 2.858 \times 10^{-6}\,, \\
\frac{\Gamma_{l\bar{l}had}}{\Gamma_{l\bar{l}}} &= 3.938 \times 10^{-4}\,. \qquad (15)
\end{aligned}$$

The relative rates for the four lepton final states quoted after eq.(16) are modified as follows:

$\Gamma_{e^+e^-l\bar{l}}/\Gamma_{e^+e^-}$ are 3.319×10^{-4} for $l = \mu$ and 3.214×10^{-5} for $l = \tau$.

The relative rates for secondary QCD radiation of heavy quarks are

$1.545 \times 10^{-3}/1.391 \times 10^{-3}/1.301 \times 10^{-3}$ for $m_b = 4.5/4.8/5.0$ GeV,
$8.339 \times 10^{-3}/7.107 \times 10^{-3}/5.729 \times 10^{-3}$ for $m_c = 1.3/1.5/1.8$ GeV and $\alpha_s = 0.12$.