Figure 40.6: World data on the total cross section of $e^+e^-$ → hadrons and the ratio $R(s) = \sigma(e^+e^- → \text{hadrons}, s)/\sigma(e^+e^- → \mu^+\mu^-, s)$, $\sigma(e^+e^- → \text{hadrons}, s)$ is the experimental cross section corrected for initial state radiation and electron-positron vertex loops, $\sigma(e^+e^- → \mu^+\mu^-, s) = 4\pi\alpha^2(s)/3s$. Data errors are total below 2 GeV and statistical above 2 GeV. The curves are an educative guide: the broken one is a naive quark-parton model prediction and the solid one is 3-loop pQCD prediction (see “Quantum chromodynamics” section of this Review, Eq. (9.12) or, for more details, K. G. Chetyrkin et al., hep-ph/0005139, p.3, Eqs. (1)-(3)). Breit-Wigner parameterizations of $J/\psi$, $\psi(2S)$, and $\Upsilon(nS), n = 1..4$ are also shown. The full list of references to the original data and the details of the $R$ ratio extraction from them can be found in hep-ph/0312114. Corresponding computer-readable data files are available at http://pdg.ihep.su/xsect/contents.html. (Courtesy of the COMPAS(Protvino) and HEPDATA(Durham) Groups, March 2004. Corrections by P. Janot (CERN) and M. Schmitt (Northwestern U.))