Logarithmic region of turbulent boundary layer from low to high Reynolds numbers YUKI WADA, YOSHIYUKI TSUJI, Nagoya University — Recent high Reynolds number experiments indicate that von Karman constant (κ) is close to 0.38. In the classical moderate Reynolds number experiments, however, show the value of κ =0.41. In this study we would like to discuss the discrepancy between these two values. Analyzing the data in the range of 1500<Re_θ<27300, we suggest the idea of Quasi Logarithmic Region (QLR) in which the log law is approximately satisfied and discuss the above issue. Using the QLR, we report the Reynolds number dependence of κ, and recommend the appropriate log-law region.

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