

Let A_0 and A_1 be quasi-Banach spaces with $A_0 \hookrightarrow A_1$. By means of a direct approach, we show that the interpolation spaces on (A_0, A_1) generated by the function parameter $t^\theta(1 + |\log t|)^{-b}$ can be expressed in terms of classical real interpolation spaces. Applications are given to Zygmund spaces $L_p(\log L)_b(\Omega)$, Lorentz-Zygmund function spaces and operator spaces defined by using approximation numbers.