

$$\nu^2(m^{-1}):$$

$$\nu^2 = \frac{ab^3E}{\pi^2L^3}m^{-1} - \frac{\gamma^2}{\pi^2}$$

$$\nu:$$

$$\nu = \frac{N}{T}$$

$$k:$$

$$k = \frac{<\nu^2m^{-1}> - <\nu^2><m^{-1}>}{<m^{-2}> - <m^{-1}>^2}$$

$$k:$$

$$\sigma_k = \frac{1}{\sqrt{7}}\sqrt{\frac{<\nu^4> - <\nu^2>^2}{<m^{-2}> - <m^{-1}>^2} - k^2}$$

$$E:$$

$$E = \frac{L^3\pi^2k}{ab^3}$$

$$\sigma_E:$$

$$\sigma_E = \sqrt{\left(\frac{3L^2\pi^2k}{ab^3}\sigma_L\right)^2 + \left(\frac{L^3\pi^2}{ab^3}\sigma_k\right)^2 + \left(\frac{L^3\pi^2k}{a^2b^3}\sigma_a\right)^2 + \left(\frac{3L^3\pi^2k}{ab^4}\sigma_b\right)^2}$$