

The thermal average of the OPE of two $O(2)$ current operators yields for $\omega \gg T$

$$\frac{\sigma(\omega)}{\sigma_Q} = \sigma_\infty + b_1 \left(\frac{T}{\omega}\right)^{3-1/\nu} + b_2 \left(\frac{T}{\omega}\right)^3 + \dots$$

where $b_{1,2}$ are universal numbers dependent upon OPE coefficients.

- b_1 depends on a relevant scalar operator with dimension $3 - 1/\nu$; for the $O(2)$ Wilson-Fisher CFT3, $\nu \approx 0.6717(1)$.
- b_2 depends on OPE with the energy-momentum tensor.