implentation of this procedure, even apart from questions about the underlying assumption on which it is based, requires the "input" information $F_i(\omega, q_o^2)$, and also requires evaluation of the complicated integral of Eq. (22). The practical difficulty arises, in part, from the fact that the $a_n(i)$ are complicated functions of n (digamma functions are involved). There are no issues of principle here; but the situation calls for numerical approximations. Let us first deal with these. For definiteness we take the underlying theory to be based on the gauge group SU(3)', with three quark triplets. Moreover, let us concentrate on the structure functions averaged over proton and neutron targets.

For the structure function F_2, the relevant exponent function $a_n(2)$ has the following key properties:[5]

(i) It vanishes at n=0, reflecting the fact that the stress tensor has canonical dimensions.[11]

$$a_o(2)=0.$$

(ii) For large n, $a_n(2)$ grows like

$$a_n(2) \sim \log n.$$

(III) The exponent function develops a pole[12] at n=-1,

$$a_n(2) \xrightarrow[n\to -1]{} \frac{-a}{n+1}$$

This can be traced back to the presence of vector gluons in the underlying theory.

On the basis of the exact results given in Ref. (5), we adopt the following approximate expression for $a_n(2)$: