polarizability, see Table I. Because of the sign of the magnetic moment contribution, we expect the pseudo-polarizability to be less than the electric polarizability. The values of the magnetic moment and electric polarizability extracted from boost-projected correlators can be used to find a value for the pseudo-polarizability. Using the results of Table I in Eq. (B5), we find

$$\mathrm{I}: \ \mathcal{A}_E^{\mathrm{latt}} = 17(9)(2), \quad \text{and} \quad \mathrm{II}: \ \mathcal{A}_E^{\mathrm{latt}} = 19(19)(2), \tag{B6}$$

for the two field-correlated fits. These values are concordant with those found in Table III from analyzing the unpolarized neutron correlators.

Finally, we note that unpolarized proton correlation functions in principle allow one access to both the magnetic moment and electric polarizability. This can be seen from the explicit form for the proton two-point function derived in the effective hadronic theory. The functional form, however, leads to fits that are challenging to perform. Valuable simplifications are afforded by boost projected correlators.

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