

# REPORT ON JHEP\_292P\_1220

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## Referee report

The work presents a reanalysis of the sum rules for the matrix elements of dimension-5 local operators sandwiched between the vacuum and the B meson state. This task was already addressed in Refs.[3] and [24]. The difference with the present study is that in [3,14] the authors considered a "nondiagonal" correlation function of dimension 5 and dimension 3 operators, whereas in the present study a "diagonal" correlation function is calculated. This has both advantages and disadvantages. The numerical results are sort of between [3] and [24] and have similarly large error bars, which could be expected. The analysis is rather detailed and accurate. and it makes a good impression, in general. From my point of view, however, this work is more suited for Phys.Rev.D than JHEP as it presents a rather standard, albeit useful, calculation using a well-known technique I have a couple of concrete suggestions as well:

1) The error estimate for the three-gluon condensate in table 1 is strongly underestimated. I do not think it is known better than by an order of magnitude.

2) The factorization approximation for dimension 7 condensate  $\langle qGGq \rangle$  is known to be strongly violated. This contribution, unfortunately, is the leading one for the "electric" matrix element (see Figure 8) so that the accuracy of the result for  $\lambda_E^2$  is unclear, it strongly depends on the (unknown) accuracy of the factorization approximation for this complicated VEV.

I suggest that this paper is resubmitted to Phys.Rev.D and can be published after a minor revision that addresses the above points.