Response to Referee Report
JHEP_252P_0420_EDREP003650920

Once again, I wish to thank the referee for their insightful feedback. I have detailed my response to each of the referee's points below.

1. (a) Thank you for this observation. Yes, the expressions for the evolution of the amplitudes and phases do contain contributions from all-normalizable resonances at all times. I have added a comment below (3.7) to reinforce this, as well as addressed it in section 4.

   (b)

   (c) I hope I am understanding the comment regarding restrictions on $\bar{\omega}$ in Appendix C. I have removed the mention of $\bar{\omega} = \omega_\ell$, since this case is not applicable when non-normalizable modes are present. To further alleviate possible confusion, I have moved the discussion of resonances from all-normalizable modes to after integer values of $\bar{\omega}$ so that the reader will not have to jump between discussions where non-normalizable modes may or may not be present.

2. (a) I have amended the abstract to limit the masses covered to those within the bounds of $m^2_{BF} < m^2 \leq 0$.

   (b) I have included reference [26] at the end of page 5.

   (c) Yes, the "and" was intended to be an "an." I have made the appropriate correction.

   (d) The duplication has been removed.

   (e) I have corrected T_ℓ to $\overline{T}_\ell$ above section 3.2.

   (f) Indeed, in these two cases $S_\ell = \overline{T}_\ell$. In later sections, however, we consider cases where S_ℓ contains contributions from multiple resonant channels (e.g. Figures 3, 4, 5). In these cases S_ℓ is the sum of these channels. Therefore, while the notation may seem redundant for early uses, I believe it provides consistency by always representing the sum of all resonant channels.

   (g) I agree that (2.21) is incorrect. In order to address this – as well as the comment regarding when S_ℓ denotes secular terms, non-secular terms, or both – I have re-ordered the discussion at the end of section 2.2 to appear before the general expression for S_ℓ in (2.2), and I have added a more in-depth explanation of secular terms following the discussion in [17]. Following this, equations (2.22 - 2.23) have been rewritten such that it is more clear that only secular terms from resonant frequencies are included.