This is a comment on "Infinite T$\bar{\text{T}}$-like symmetries of compactified LST"

- The authors studied the asymptotic symmetry algebra of asymptotically linear dilaton backgrounds.

  The authors first reviewed the single-trace $T\bar{T}$ deformation connections to the NS5-F1 branes configuration which in certain limits is related to the vacuum of little string theory (LST). LST is conjectured to be holographically dual to string theory in a linear dilaton background times a compact internal space. The metric considered has the structure $S^1 \times R^{1,1} \times S^3 \times T^4$. T^4 is the internal space.

  The authors then performed a truncation on S^3 to three dimensional gravity coupled to dilaton. The truncated theory has black hole solutions. The solutions are asymptotically flat with a linear dilaton.

  The authors studied asymptotically linearized solutions off the black hole solutions generated by large diffeomorphisms.

  They constrained the phase space by requiring that a symplectic form constructed from the truncated theory via the covariant phase space formalism must vanish. They used this condition to fix some of the modes.

  The authors then computed the conserved charges associated with the diffeomorphisms using the covariant phase space formalism. The authors also studied the algebra of the charges. They also discussed its relation with that of a single trace $T\bar{T}$ deformed symmetric product and double trace $T\bar{T}$ deformation.

  They have also pointed out and discussed several ambiguities in relation to the order of taking different limits, and cases that need further studies such as the case in which $4k\alpha'\omega\kappa > 1$.

- Minor changes or suggestions:

  - It would be nice if the authors add an appendix that reviews the covariant phase space formalism and related ambiguities in defining the charges or the symplectic form.
  - Below eq. 2.13 on the second line it says "The dilaton reduces to a constant, $\cdots$". It is the exponential of the dilaton $e^{2\phi'}$ or the asymptotic value of the six dimensional string coupling square that reduces to $g_6^2 = k/p$.
  - On page 8 the first sentence should read "... the fact that this ...."
  - On page 9 above section 3.1. the last sentence should read "... compare them to ...."
  - On page 9 above eq. 3.6 you introduced E_{ab}. It is better to define it explicitly.
  - On page 9 footnote 5 on the fourth line should read "Einstein equations ...."
  - Do f_r and $\bar{f}_r$ given in eq. 3.58 get corrections in p. In other words can the corrections or $1/p$ dependence be determined uniquely for $f(u)$ and $\bar{f}(v)$?

- The authors studied in depth and several results are presented. I recommend it for publications once the minor changes are addressed.