Dear Editor,

Main questions/concerns:
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Question 1: *The starting point for the discussion of new results is the claim that, for the 10d fields, (3.1a) and (3.1b) represent the entire first order in alpha' modification. Some intermediate results towards deriving this are presented in the appendix. Yet it was outside the scope of this review to go through this key calculation in full detail. Given that the final argument presented in Appendix D seems heavily based on the result of [11], could the authors confirm that they have checked that the final solution satisfies the equations of motion independently of intermediate results in [11] from the point onwards where the sign diference may have been included, i.e. from where the specific ansatz for H was used?*

Answer: We can show explicitly that the sign ϵ does not affect the H^2 terms in the equations of motion. All it affects are the T tensors which we have computed in the appendix. And yes, we have checked explicitly that all the equations of motion are satisfied in all the solutions that we present in this paper, for all the possible values of the parameters included in them.

I believe that the relation between the vanishing of $T^{(2)}{}_{++}$ and Z_+ could be made more clear in appendix D.

Answer: We have added a sentence in the paragraph above Eq. (D.4) explaining how the vanishing of $T^{(2)}{}_{++}$ is related to that of $\mathcal{Z}_+$ in the non-supersymmetric case.

Question 2: *In this discussion I missed how in general the regime of validity depends on the interplay between the size of the charges and their relative distance as compared to the scale of the corrections.*

Answer: The regime of validity depends on the size of the charges and not on the relative distance between the centers. This is something that one can check by direct evaluation of curvature invariants, for instance. In particular, one can take the limit of two centers approaching each other and the resulting configuration will be in the regime of validity of the effective theory if the initial one was, as the final charges will be the sum of the charges associated to each of the two centers.

In addition, as the authors discuss in the introduction (and stress in Figure 1 and Figure 2), the absence of struts is important for the black holes to be in equilibrium by themselves, i.e. in absence of external forces as provided by say such struts. In footnote 26, in 3.1.1 on p 23, it seems to be suggested that previous regime of validity argument is not valid for the struts. Instead, if I understand correctly, the argument here rests solely on a seeming absence of interaction energies suggested by the relation between the total mass and the putative single center masses. Is this correct and would *the authors agree that, even though suggestive, this does not rule out their possible presence?*

Answer: Exactly, this is our understanding as well. The fact that the relation between the mass and asymptotic charges does not change suggests that the configuration should be in equilibrium (and, therefore, that there will be no strut singularities). However, we do not see this as a solid argument to rule out the appearance of struts, as the referee points out. This is something that one should check after constructing the explicit solutions, which is precisely what we have done in the paper.

Minor questions/remarks/typos:
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1. Indeed, it is true that the non-supersymmetric case looks more T-duality symmetric than the supersymmetric one, but we do not have an explnation for this phenomenon.

2. It is correct and it is better understood as a continuation of the previous paragraph which refers to the "...simple and paradigmatic black-hole solutions..", whose α' corrections have already been found and which are the extremal ones. We have added the word "extremal" to the previous paragraph and we have rewritten the first sentence of that paragraph so make its meaning more clear.

   Furthermore, we have replaced Ref. [16] by a reference to a more recent paper by one of us in which the corrections to the 4-charge solutions have been computed but only in the particular case in which two of them are equal. The case in which the 4 charges are independent still seems out of our reach. We have added an explanation of this fact.

3. It is an excellent question, but we are not doing any microstate counting here. Not being experts on this, we cannot judge how reliable are the computations of microstate degeneracies in absence of supersymmetry. However, recent results on the thermodynamic of near-extremal black hole seems to indicate (at least, to the best of our understanding) that in fact there are quantum corrections dominating the low-temperature regime which should be reconsidered from this point of view. (The last thing can be avoided, though.)

4. There is no canonical definition of what the Sandard Model of Fundamental Particles and Interactions is[1] but it is true that, 30-40 years ago, gravity was not usually included in the set of fundamental interactions described by the Standard Model and was disregarded by particle physicists because of its relative weakness between

[1]There is no canonical name, either, since people usually talk about the *Standard Model* never mentioning what it is a model of. Is it a model of *all* fundamental interactions or just of those which we know how to describe using special-relativistic QFTs?

elementary particles even though it certainly is a fundamental interaction. We think that nowadays many theorists include gravity in the Standard Model as part of the fundamental theories that describe our world. It is discussed in the Review of Particle Physics and the graviton is often mentioned as a yet to be found elementary particle that intermedates the gravitational interaction. From this point of view and, independently of the existence of the graviton, we believe that it makes sense to say that the metric is a field of the Standard Model, the field that describes the gravitational interaction.

Within the realm of this Standard Model in which gravity is described by General Relativity the metric is just a rank-2 symmetric tensor under diffeomorphisms. It is the only field of the Standard Model which behaves as a tensor under diffeomorphisms since all the other fields have some kind of gauge freedom (they are Lorentz tensors, SU(2) doublets or gauge fields...). As we have explained in several papers such as [37,40] etc., fields with gauge freedoms do not transform as simple tensors under diffeomorphisms and the gauge transformations induced by the diffeomorphisms need to be taken into account.

In supergravity theories, though, there are no tensor fields anymore (see `2305.10617 [hep-th]`) since the metric also transforms under local supersymmetry.

5. We have replaced "we" by "tow of us".

6. We have added the references which we think are most relevant in this case in a long footnote at the beginning of Section 2.

7. We have not cited these references because we believe they are not strictly relevant for this work. As a matter of fact, one of us has published two papers on the very same topic suggested by the referee and we are not citing them, either.

8. We have modified the paragraph above Eq. (4.5) to refer to the definition of the curvature of the torsionful spin connection.