> ==========
> Report from Referee:
>
> I thank the authors for their response, and they have satisfactorily
> addressed most of my concerns. But there are two issues that I am
> still unsatisfied with.

Thank you very much for your comments.
We have revised our paper taking account of your comments.
As for the details, please see below.

> 1) The first has to do with the size measurements. The updated
> uncertainties on the fits seem to be more realistic. However I am
> still quite worried about the size measurements. Now the only object
> for which there is a measurement in the ground-based i'-band as well
> as the ACS i-band still gives very different size measurements
> (although they are consistent at ~2 sigma). So this does nothing to
> alleviate my previous concern that the i'-band measurements may be
> very biased... and if they are biased, then the IA measurements may
> also be biased (especially since those bands have even worse
> seeing). So the authors need to do more to convince readers that the
> Lyman-alpha emission really is extended.

Thank you very much for this comment.
In order to show our Monte Carlo simulation results unambiguously,
we have given f_unres, the fraction of the cases where GALFIT returned
the ¡Èunresolved¡É flag in the 200 simulations in Table 2 (this is a new table).
A non-zero value of f_unres indicates that the best-fit models could be fit
with the pure PSF in some cases; namely, such an object is resolved
only marginally or not resolved.

As shown in the last column of Table 2, the above simulations give
the following results for the IA images.

No.	f_unres
1	0
2	0
3	0
4	0.685
5	0.050
6	0.410

Taking these results into account, we can can conclude that the
Ly-alpha emission is really extended for Nos. 1, 2, and 3. However,
we cannot conclude that the Ly-alpha emission is really extended for
Nos. 4, 5, and 6. We have given these statements in the last part of
Section 2 in the newly revised manuscript.

> The authors state that "all the MAESTLOs cannot be distinguished from
> the point sources in the Subaru i'-band data." How exactly have the
> authors determined this? Can the authors definitively rule out that
> the IA-band light profiles can be modeled as compact sources? (The
> simulations performed by the authors in the new manuscript are useful,
> but all they show is the accuracy with which it is possible to recover
> large sizes measurements, which may themselves already be very
> biased). There are several ways to test this. Perhaps the simplest would
> be to do simulations as the authors have already done, placing model
> light profiles at random locations, but use the best-fitting F814-band
> light profiles rather than the IA-band light profiles. The authors
> could do this in both the i'-band and the IA bands; this test would
> show whether the updated uncertainties are reliable, and will also
> show whether the ground-based size measurements are biased.

Thank you very much for this comment. Following your suggestion, we
have also carried out additional simulations. In these simulations,

(1) we convolved model galaxies with the best-fit F814W-band
light profile with the PSF of the IA-band data,
(2) then, we added them into the IA-band image, and
(3) we measured their sizes with GALFIT.

We performed 200 such simulations for the two MAESTLOs with the
extended Lya emission (Nos. 1 and 3) for which ACS image is available;
note that No. 2 is located out of the ACS coverage. As a result, we
found that GALFIT returned the "unresolved" flag in most cases
(185/200 and 169/200 for Nos. 1 and 3, respectively). Therefore, we
have confirmed that their Ly-alpha emission is really extended in
their IA images. We have also added this result in Section 2 of the
newly revised manuscript.

> On a related point, in the updated text the authors state that "we fit the
> observed surface brightnesses with an exponential law" (fourth
> paragraph of section 2). I assume that they leave the Sersic index n
> free in the fit, rather than forcing it to an exponential profile
> (n=1). However if they have forced n=1 then they should explain why
> this is necessary and justified.

Thank you very much for this comment. Actually, we tried to fit with
the Sersic profile at first in our simulations. However, we found
that our data are not deep enough to resolve the well-known degeneracy
between the radius and Sersic index, and thus the radius cannot be
strongly constrained if n is free. Therefore we measured the sizes
under the assumption of n=1. We have also added this explanation in
Section 2.

> 2) I am still puzzled by the author's interpretation of the
> Lyman-alpha emission as due to superwinds that are left over from a
> star formation episode. Although this is certainly an interesting
> idea, there are other possible explanations, and there is an extended
> literature on the complicated physics and geometry of Lyman-alpha
> emission that the authors do not address at all.

> As the present manuscript is a Letter, and the focus is on the
> observational result rather than a physical interpretation, an
> extended discussion of the possible causes of the Lyman-alpha emission
> is clearly not necessary. But the authors need to at least draw
> attention to the fact that the physical explanation of superwinds is
> quite speculative, and that there are other possible explanations.

Thank you very much for this comment. As you mentioned, this paper is
not a FULL-LENGTH but a LETTER one. Therefore, we did not dare to
give a long review on possible physical mechanisms for the observed
extended Ly-alpha emission around our MAESTLOs. Since we considered
that the most plausible interpretation is the superwind model, we
focused on the explanation adopting this model in our manuscript.
However, taking account of your suggestion, we have shortened and
weakened the discussion based on the superwind model (see below,
please).

> For instance, the extended Lyman-alpha emission may be related to the
> Lyman-alpha blobs (LABs). The LABs are indeed mysterious because, as
> far as I know, the cause(s) of their emission is still completely
> uncertain. As just one example from the literature, Dijkstra & Loeb
> (2009) discussion several possible explanations for the origin of
> LABs, and endorse the idea that the emission is due to the

> gravitational energy of infalling gas. It is also worth noting that
> Steidel et al. (2011) show that extended Lyman−alpha emission is
> ubiquitous around ordinary star−forming galaxies at these
> redshifts. Those authors discuss in detail the ways in which the
> Lyman−alpha photons can originate from *within* the galaxies, rather
> than outside of the galaxies.

> Here I have picked just two well−known examples in the literature that
> discuss possible origins of extended Lyman−alpha emission; there are a
> number of others. Of course the nature of the Lyman−alpha emission
> from the quenched galaxies discussed here may be very different than
> the Lyman−alpha blobs or from ordinary star−forming galaxies, but on
> the other hand they may all have the same underlying cause, and the
> authors have not given any reason for preferring their physical
> explanation over the various other explanations in the literature.

> One interesting point which the authors may choose to purse is that,
> based on the UVJ color−color diagram it seems that galaxies 1, 4, and
> 6 (and perhaps 3) are in a post−starburst phase. Since the typical
> outflow velocities from star formation is well−known (AGN are faster),
> and the authors have some estimate of the extent of the Lyman−alpha
> emission, it would be trivial to estimate the approximate timescale of
> the superwind (if that is what's causing the emission) and to
> determine if it's consistent with the time since last significant star
> formation from the SED fitting.

> Regardless, the authors need to draw specific attention to the fact
> that the physical explanation of superwinds is quite speculative, and
> that there are other possible explanations.

Thank you very much for these comments. As you mentioned, the observed extended Ly−alpha emission around our MAESTLOs may be related to LABs. However, we do not think so because the observed sizes of Ly alpha emission nebulae are only several kpc. Please remember that those of LABs range from several tens kpc to ~ 100 kpc. Actually, we did not mention about LABs in our original manuscript.

Yet, previous discussions on the origin of LABs are useful. Let us summarize several possible origins for LABs below;

(1) resonant scattering of Ly−alpha photons produced in the central region of a galaxy (Moller & Warren 1998),
(2) the superwind model (Taniguchi & Shioya 2000),
(3) photoionization by nearby galaxies and/or AGNs (Cantalupo et al. 2005), and
(4) gravitational cooling radiation (Haiman et al. 2000).

Among them, we consider that the first three mechanisms may explain the observed extended Ly alpha emission surrounding the MAESTLOs. We now also consider that we cannot discriminate them solely by the observational properties of MAESTLOs given in this Letter. Therefore, we have decided to shorten and weakened the discussion based on the superwind model given in our previous manuscript. Instead, we have simply mentioned the above three possible origins equally in Section 3. We have also made the same change in the ABSTRACT.

Please note also that we do not discuss superwind properties such as outflow velocity, time scale, and so on because we have simply mentioned about the superwind model as one of possibility.

From a theoretical point of view, we also consider that the gravitational cooling radiation may be related to LAB phenomena. However, we have not yet found any LABs caused by gravitational cooling radiation to date. One possible case is the LAB in GOODS−S found by Norris et al. (2006). Although this LAB has been

discussed as the best case for gravitational cooling radiation for these years, Prescott et al. (2015, ApJ, 802, 32) have recently identified 6 galaxies and one AGN are associated with this LAB. Therefore, we now have no observational evidence for gravitational cooling radiation. Further, gravitational cooling radiation is a quite unlikely case for the MAESTLOs because a very massive, aged galaxy already exists in each MAESTLO. Such gravitational cooling radiation would be brighter in the forming phase of giant galaxies since the cold gas accretion rate could be much higher. Therefore, we do not mention about this model in the newly revised manuscript.

We have shifted the discussion on the extended Ly alpha emission to the final part of Section 3.

Finally, we would like to mention about the following three things.

1. We have made a Chandra stacking analysis for our six MAESTLOs and confirmed non detection. We have given a short note on this analysis in Footnote 18.

   "Note that a stacking analysis for the 6 MAESTLOs, corresponding to a ~ 650 ksec exposure, results in no detection. The 95\% upper limit in the 0.5−−2 keV band is 3.63x10^{−5} counts s^{−1} which corresponds to a rest−frame luminosity of 7.76x10^{42} ergs s^{−1} at z ~ 3."

   Since this analysis has been made communicating with our COSMOS members, Richard Griffith and Fracesca Civano, we have added them as our co−authors.

2. We have found a typo in Table 1 for MAESTLO No. 4.

   EW0(Lya) = 110 +/− 15 A should be read as 178 +/− 16 A
   log[SFR(Lya)/(Msun/yr)] = 0.70^{+0.05}_{−0.05} should be read as 0.88^{+0.03}_{−0.03}

   As shown in Figure 1, the Ly alpha emission of this object is detected in the two IA filter bands, IA 505 and IA 527. In the previous manuscript, we showed EW0(Lya) based on the IA 505 measurement. However, since we should use EW0(Lya) based on the IA 527 measurement, we have made the above changes in Table 1.

   The radius is remeasured by using the IA 572 image ad thus the following change has been made in new Table 2. r_HL(IA) < 5.70 kpc (in Table 1 in the original manuscript) −−> < 6.20 kpc (in Table 2 in this newly revised manuscript).

   Please note that there is no change in Figure 2 where we used the IA 527 measurement.

   We are very sorry for this mistake. Please accept our sincere apologies.

3. We have merged the previous Fig. 2 and Fig. 3 into a new Fig. 2 in the newly revised manuscript. Since the ordinate is the same in the previous Fig. 2 and Fig. 3, this change is reasonable and makes the paper size shorten.

That's all. Thank you very much.