Dear editor,

We thank the referee for her/his direct and relevant criticism of our manuscript. As explained below in our answers, we have modified the paper to incorporate her/his suggestions. Modifications are marked in magenta in the revised manuscript. For convenience, we have divided and numbered the referee’s points into questions in our answers below.

**Q1)** First, while the maps contained in the PyCASSO database are clearly described, and there is a nice discussion on the quality of the CALIFA data and the quality of the STARLIGHT fits, there is no discussion or way for the reader or PyCASSO user to determine to what level the maps presented in the database can be trusted. At what level of fit quality should the results be trusted? What is the relative uncertainty between galaxies and within galaxies? I can see clear variations in many of the maps (ie b, logZ, log t), yet have no way to determine to what level I as a reader or user should trust these variations.

The two different stellar population synthesis libraries used provide some handle on the systematics with such fits, but, as described in the text, having some handle on the RELATIVE uncertainty (between and within galaxies) is vital.
A clear example is the velocity dispersion map - without reading the text or being aware of the resolution of the COMBO CALIFA data, I would have no way in knowing that most of the variations in this map are untrustworthy.

I realise that provide such uncertainty maps with STARLIGHT is difficult, but there are ways in which this could be achieved, such as randomly sampling the original spectra within errors, or variations caused by dropping a single spectra from the library.
Furthermore, just a simple association in the text of some of quality control maps with how much the resulting maps should be trusted is vital in the text.

**Answer:** Indeed, as pointed our by the referee, it is very cumbersome to estimate uncertainties with STARLIGHT, yet users of the database should be able to evaluate to which level should the products be trusted. There are, however, two ways relatively simple ways to gauge to which level one should trust the properties provided in the database. The first is to use the simulations in Cid Fernandes et al 2013 as a guide. That paper presents extensive simulations of the effects of noise and flux calibration uncertainties. This is now discussed in section Section 4.5.3 and Table 3. Another (more empirical) evaluation of uncertainties is possible when a symmetry argument can be invoked. In a bulge, for instance, one can say that the RMS in a given property (say, the mean age) at a fixed radius provides an empirical measure of the uncertainty. This argument is exposed in Sec 5.1.1. It turns out both estimates are compatible with each other, as seen in the revised version of Fig. 7, where the typical error bar (from the simulations) is visibly of the same order as the dispersion in the properties with the bulge.

Upon writing this new subsection, we found that the discussion on the different bases would fit better near the discussion on uncertainties. So we have moved it to Section 4.7, whereas in the previous version it appeared just before the Conclusions.

**Q2)** Other tests that could be performed include comparing the PyCASSO velocities and sigmas with that determined from the V1200 grating data, or comparing the PyCASSO SFR maps with that from the Halpha maps, or the stellar mass surface density maps with those determined from other bands (e.g. the S4G database of Sheth et al., 2010 (PASP, 122, 1397). Having some external checks on the database’s results would further enhance the database (on top of the checks already performed on the STARLIGHT code).

**Answer:** We followed the referee’s suggestion and presented such “external validation” tests in Section 6 of the revised manuscript. The tests include a comparison of our stellar mass surface densities with those derived from the S4G database for 36 objects in common, and a comparison of our STARLIGHT-based SFRs and those derived from H-alpha using the publicly available measurements in Sanchez et al (2016) for 166 objects in common.

**Q3)** The second issue is that many of the figures (and associated science) in the paper are reproductions of plots in previous papers of the authors. These figures have been updated with the newer models and larger samples of the PyCASSO database, yet the new figures appear to be very similar to what was presented previously even with the newer models and more galaxies. Furthermore the text barely describes any differences between these and previous results. This suggests that, apart from the presentation of the catalog, there is no new science in this paper. While this does not mean the paper is unpublishable, it does pose the question: what use is the catalog if no new results can be found or presented?

My suggestion is that the authors try to find some new figures/science to present in this paper, or, if they present figures that have been shown in previous papers, how the new data or larger sample of galaxies improves the science & figures from the previous papers.  Make clear how the new database is a step above and beyond what has been released/discussed before.  If no new science can be found, or if there are no significant differences between the new database and previous results, I would suggest cutting down on these figures and concentrate the text more on the creation and description of the database.

**Answer:** About figures 9 and 10, they are indeed intended to represent final versions of plots presented in previous publications with partial data sets. The referee is right in pointing out that these final plots do not differ significantly from the original ones, but we regard it as important to present these final versions now that the CALIFA survey is finalized. These figures (also figures 6 and 11) were updated to use radial bins up to 2.5 HLR.

In analogy with our previous experience with the STARLIGHT-SDSS database, we envisage that the combination of our stellar population products with emission line measurements will foster new and interesting investigations. In a way, the comparison of H-alpha and STARLIGHT-based SFRs (Sec 6.2.1 and Fig. 13) is already an example of this. To our knowledge, such a comparison has only been previously presented by Asari et al (2007), and in the context of SDSS galaxy-spectra.

To illustrate the potential of this combination the revised manuscript includes a new section and figure where the WHAN diagram of Cid Fernandes et al (2011) is coloured by stellar population properties offered in the database (Section 6.2.2 and Figure 14). The emission line data, again, comes from the publicly available Sanchez et al (2016).

Also, we point out that some of the original version did contain at least three bits of new science: 1) The bulge/disk decomposition of the stellar mass surface density profile (Section 5.1.2 and Fig. 8), 2) the “dust-to-stars” ratio, shown in bottom panel of Fig 7) the pseudo Schmidt-Kennicutt relation (Sec. 5.2.3 and Fig. 11). None of these have been explored in previous publications, except for the SK-law, which was presented in preliminary form in a conference proceedings. In the spirit of the paper, these results are not fully explored, but simply presented as illustrations of the scientific potential of the database.