Title: A Detailed Photometric Analysis of Early-Type Spiral Galaxies in Pairs

I thank the reviewer for their helpful comments that improved the paper. Please see my answers in red below.

Reviewer A:

This is a well-written paper on the author's work on a photometric analysis of the morphologies of early-type spiral galaxies in pairs. This paper gives an understandable explanation of the sample selection, analysis methods, and results. I have a few minor suggestions. I recommend the paper be accepted pending these updates.

• There are a few suggestions for wording changes that I highlighted in the attached document.

All suggestions have been included/resolved.

• SDSS styles their filters with italics, so mentions of g- and i-band data should use italicized letters.

The style has been updated to italicize all mentions of the *g*- and *i*-bands.

• Variables when mentioned in the text are also usually in italics.

The style has been updated to italicize all variables mentioned in the text.

• In the caption of Figure 2 and the text explaining it, you note that the dominant Fourier terms are m = 1, 3, and 4 for the example galaxy. I wasn't sure if this was something that can be determined from a visual inspection of the panels, or if it's something that comes out numerically in the model. If the dominant terms are determined visually, it would be helpful to give an explanation of what to look for when making that determination (I wasn't sure just from looking why 1, 3, and 4 were dominant but 2 and 5 weren't). Also, I wasn't sure what the sentence above Figure 2 that says "For example, a galaxy may have a set of two spiral arms as well as a set of three spiral arms" meant -- could you explain this a little more?

I've updated the paragraph prior to Figure 2 to clarify the process for determining dominant Fourier terms.

• Since the first sentence of the abstract and first paragraph of the introduction say that this project explores the relative contributions of nature and nurture in galaxy evolution, it would be nice to have a sentence or two in the Discussion section summarizing what your results can say in that context. Specifically, the last sentence of the second paragraph in the Discussion says "With the added context of the AMIGA sample, the parameters of interest within the results section became additional indicators of more secular evolution within the CPG sample, compared to the CIG and LGG samples." This is interesting -- could you elaborate on this a little more?

I have split the second paragraph in the discussion section into an additional paragraph. This third paragraph now explains more on the three parameters of interest and how they relate to the idea of nature vs nurture.