

PHY 375

Writing Assignment 3

(Due in D2L Dropbox by 5 PM, Thursday, 5/17)

The discovery of the acceleration of the expansion of the Universe was considered so important that Science magazine named it the “Breakthrough of the Year” in 1998. In this assignment, you will read a review paper describing this discovery, and carry out the tasks listed below.

Study the review paper by Adam G. Riess (2000, PASP, 112, 1284). The paper is posted at the same location where you obtained this file (see “Links to Papers” under “Writing Assignments” on the course website). An explanation of the major points of this paper is also provided in Section 7.5 of your text, although understandably, your text leaves many things out. In fact, Figures 7.5 and 7.6 in your text correspond to Figures 1 and 2 in the Riess paper. Nevertheless, it is important that you also read Section 7.5, since Ryden does an excellent job of explaining the core ideas in the Riess review.

In a (minimum) 2-page paper, do the following:

- Figures 1 and 2 in the paper are different ways of showing the same thing. Yet, there are subtle differences in what these two figures reveal. Summarize everything you can learn from these two figures, and see if you can find what it is that you can learn from one figure that you can’t from the other. Note that understanding Figure 1 requires knowing about absolute and apparent magnitudes and the distance modulus, and Ryden has an excellent summary of these in Section 7.5.
- The paper also discusses some things other than the acceleration of the universe that might give rise to the observed results. Discuss any one of these in detail.

The paper should be a minimum of 2 pages (double spaced, in 12 pt Times New Roman font, or equivalent, and 1 in margins on all sides).

Any sources you use should be cited in a bibliography at the end of your paper (this *should not* be part of the minimum 2-page count).

It is important to remember that you should not cut and paste material from the Internet; everything should be in your own words.

This assignment is due in the D2L Dropbox by 5 PM on Thursday (5/17). Late assignments will not be accepted under any circumstances. Emailed papers will not be accepted, they must be submitted to the D2L Dropbox.