

## Editorial

# Self-Correction and Updating in Astronomical Papers

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Published papers constitute the historical record of science, and we often think of them as fixed monuments to scientists' work. However, the record as a whole develops faster and faster as more and more new work is added. Now that most journal articles are not crystallized in print, one can imagine that it may even be possible for individual papers to evolve. After all, most projects are not ever truly finished. Sometimes, authors gather new information about a result that is not enough for a whole new paper but is suitable for a short update.

More seriously, scientific publications sometimes contain mistakes in data acquisition, reduction, or analysis. It's too bad to make a mistake, but the important thing is how its maker addresses it. Scientific journals carry out the task of maintaining the integrity of the record, in the face of those occasional errors, through retraction of articles and publication of errata.

Retraction concerns scientific errors that are serious enough to invalidate the conclusion of a paper. It can also concern ethical breaches such as plagiarism discovered after publication, in which case the Editor may initiate a retraction (Vishniac 2015). Recently, *JAAVSO* published its first retraction (Axelsen 2021). Author Axelsen is to be commended for the care with which he analyzed that error.

Errata sometimes bring to readers' attention major errors that alter an article's research conclusions. Or the error may be minor, affecting only the details or the clarity of a presentation. Errata are usually written by the author of the original paper, although the error may have been brought to the author's attention by someone else. Errata appear in *JAAVSO* at a rate of one or two per issue, comparable to other scientific journals.

Now what about updates to articles, which do not correct errors but simply add new information? The present volume introduces a "Research Update," a short article that, rather than correcting an error, incorporates new information that modifies or clarifies a research result. This type of submission is not typical in standard scientific journals; *JAAVSO* is fortunate in having the flexibility to publish such an item at low cost. The only other example of which I am aware is the *Research Notes of the American Astronomical Society (RNAAS)*.<sup>1</sup> It accepts articles that build on results published in that journal or elsewhere.

Our new feature came about because author Ernst Pollmann asked to update his article with Philip Bennett (Pollmann and

Bennett 2020) in order to resolve a discrepancy between periods derived from different features in the H $\alpha$  profile of target star VV Cep. We are glad to provide this service.

Because this update involved no new methods or concepts but only additional data, it was not sent for peer review. The Editor will determine whether any future updates will be sent for peer review. In the case of errata, referees may be informed if significant errors are involved. Referees are always informed of retractions.

Because of the possibility that a journal article may be corrected or updated, you should check for a newer version of any article that is important for your research. Our staff has begun the practice of inserting a note at the end of the abstract of each updated or corrected article, with a link to the update or correction. Therefore, when checking an article in *JAAVSO*, always read the abstract page of the online version.

You can also find updates, errata, and retractions in the list of citations to our articles in NASA's Astrophysics Data System (ADS).<sup>2</sup> If an article has received a citation in the literature, the notation "cited:" and the number of citations appear in the results list from an ADS search, after the article's bibliographic code. But our articles' updates and corrections are not indexed in the ADS, nor do they appear in the ADS citation lists, until they appear in our complete, published issue.

*JAAVSO* encourages authors to submit retractions (in case they are unfortunately necessary), errata, and updates. Of course, new articles are welcome when significant new results require substantial treatment. Updates offered by researchers other than the author of an article can be considered, upon consultation with the original author. Our goals are that our published articles remain at the forefront of the field and our readers always have access to fresh information.

## References

- Axelsen, R. A. 2021, *J. Amer. Assoc. Var. Star Obs.*, **49**, 197.  
 Pollmann, E., and Bennett, P. 2020, *J. Amer. Assoc. Var. Star Obs.*, **48**, 118.  
 Vishniac, E. T. 2015, *Astrophys. J.*, **815**, 79.

<sup>1</sup> <https://journals.aas.org/news/scope-of-research-notes-of-the-american-astronomical-society/>

<sup>2</sup> <https://ui.adsabs.harvard.edu>