

Editorial: The Unsung Heroes of the Scientific Publication Process—The Referees

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You are aware (I hope) of the hard-working staff of this *Journal*—Production Editor Michael Saladyga (who does most of the work), Associate Editor Elizabeth Waagen and Assistant Editor Matthew Templeton, who review the submitted papers for general accuracy and from the perspective of the AAVSO and edit them for style, language, and content, and the less hard-working Editor (me). An Editorial Board provides sage advice from time to time. But there are several dozen others who make essential contributions to the publication process—the referees who read, consider, and assess every paper in this *Journal*, anonymously. For that reason, we do not list them here, but they are not unappreciated, or forgotten. The purpose of this editorial is to pay tribute and thanks to these people—almost a hundred since I became Editor.

Scientific journals are of many kinds. There are unrefereed, usually informal print or electronic publications which publish or post any appropriate material which they receive; the content may or may not be reliable. There are commercial journals whose main purpose is to make a profit—often by charging hefty subscription fees to libraries and/or page charges to authors. There are high-powered professional journals which publish papers by experts, for experts. There are prestigious general science journals such as *Nature* and *Science* which publish only a small fraction of all papers submitted.

This *Journal* is unusual in the sense that its authors are very diverse; they include professional astronomers and students, and the sort of skilled amateur astronomers who make and analyze variable star observations. The readers are even more diverse; they range from beginners to experts. Some readers complain that not all the papers are of interest to them but, since the *Journal* is on-line and open-access, readers can download and peruse any articles they want, and ignore the rest. But all the articles (we hope) have value to some readers—present or future.

The refereeing process must be both anonymous and confidential. In high-powered journals, especially in medical research, there are occasional cases in which the referee inadvertently or deliberately makes use of the content of a paper in their own work. Journals, and professional societies such as the American Astronomical Society have codes of ethics for their members, which deal with this and other issues (see, for example, <http://aas.org/about/policies/aas-ethics-statement>).

Refereeing isn't easy. In education, Bloom's Taxonomy is a way of classifying the depth of understanding of a topic. Evaluation is the highest level.

At least in academia, being asked to referee a paper is considered an honor, and counts for “Brownie points” at annual-report time. In sports, referees are usually called on to make a yes-or-no decision; in science, it is more complex. The referee must not only read and understand the paper, but they must also be able to provide useful, diplomatic, timely advice to the authors who, in the case of this *Journal*, may not be experienced at scientific publication. Our instructions to referees (<http://www.aavso.org/instructions-referees-jaavso>) are gentle and straightforward.

The ninety referees who have served us in the few years since I became Editor come from seventeen countries, on all continents except Antarctica. Most are professionals, but over ten percent are expert amateurs—one more illustration of the fact that amateurs can reach the status of “masters” in the field of variable star astronomy. The referees are chosen for both their expertise, and for their understanding of the special nature of this *Journal* and its readers and authors. Many are already associated with the AAVSO in some way. They are certainly kindred spirits.

Our referees play an essential role in maintaining the high scientific quality of the *Journal*, while providing guidance to a diverse authorship. On behalf of the AAVSO, the *Journal* staff, and the readers, I thank them, warmly and gratefully, for this important contribution.