A tudományos közlés művészete

IV. Egy tudományos cikk 3.

Kiss László
MTA KTM Csillagászati Kutatóintézet

Miről lesz szó?

- Mit tegyünk, ha elkészült a kézirat? A beküldés.

- Hogyan olvassuk a referee reportot és hogyan reagáljunk rá? Válaszok.

- Elfogadás utáni teendők

A folyóiratban publikálás ügymenete

Preambulum: a folyóiratok működési struktúrája

1. Kiadó (publisher): általában profitorientált gazdasági vállalkozás (pl. A&A: EDP Sciences, MNRAS: Wiley-Blackwell; de pl. ApJ: az IOP Publishing nem profitért vállalkozik)

2. Laptulajdonos: csillagászati-tudományos szervezet (A&A: nemzetközi igazgató-bizottság - Board of Directors; MNRAS: Royal Astronomical Society; ApJ: American Astronomical Society)

   a publikálás költségeit a laptulajdonos kigazdálkodja és elengedi a szerzőknek (MNRAS, A&A részben), vagy áthárítja a szerzőkre (page charge, ApJ)

3. Szerkesztőség: a laptulajdonos által fizetett alkalmazottak. Főszerkesztő, szerkesztők szerény juttatásért nem szerény munkát vállaló tudósok; + ügyintézők.

A folyóiratban publikálás ügymenete

A szerzők a szerkesztőséggel kommunikálnak a cikk közlésre elfogadásáig. Utána a kiadóval. Főbb lépések:

1. Cikk beküldése a szerkesztőségbe

2. A főszerkesztő (tudós) kijelöli a kézirattal foglalkozó szerkesztőt (tudós)

3. A szerkesztő és/vagy főszerkesztő előszűri a cikket: érdemes-e bírálónak kiküldeni?

4. Igen: a szerkesztő beazonosítja a bíráló(k)ként felkérhető tudósokat.

5. Legtöbb folyóirat egy referee-t kér fel (de: Icarus: 3 ref., Nature: 3 ref.)

6. Bíráló felkérése, mindaddig, míg valaki el nem vállalja (nem egyszerű feladat!).

Néhány érdekes adat

Reviewing and Revision Times for The Astrophysical Journal

HELMUT A. ABT

Kitt Peak National Observatory, Tucson, AZ 85726-6732; abt@noao.edu

ABSTRACT.   From a study of the editorial log for 251 manuscripts submitted in 2006, we learn that 6% are rejected, 5% are withdrawn, and 88% are eventually accepted for publication. Of the accepted articles, 30% are reviewed once, 58% twice, and 12% are reviewed 3–5 times. The mean time for the first review is 31 days and for the first revision is 44 days. The spread in total reviewing times (dispersion of 16 days) is much shorter than in total revision times (54 days). Important articles, those receiving 31–193 citations in 2 yr, are not reviewed more promptly than others nor revised more promptly. Only in the subfield of high-energy objects do the authors revise their manuscripts marginally more promptly than others.

2. THE METHOD

I visited the *ApJ* editorial office in Hamilton, Ontario in 2009 August and collected data on the first 251 articles received between 2006 January 3–February 15. That number represents 8.6% of the 2926 articles published by the *ApJ* in Part 1 and the *Supplements* in 2006. That time period was selected because the

TABLE 1
Eventual Dispositions of the 251 Submitted Manuscripts

Outcome	Number	Percentage
Rejected immediately	10	4.0 ± 1.3
Rejected after one or more reviews	6	2.4 ± 1.0
Withdrawn	13	5.2 ± 1.4
Accepted after one review	5	2.0 ± 0.9
Accepted after revision(s)	217	86.4 ± 5.9
Totals	251	100.0

TABLE 4
Frequencies of the Numbers of Referees Approached for Accepted Articles

Referees	Number of cases	Percentage
1	149	67%
2	39	18
3	15	7
4	7	3
5	6	3
6–10	6	3

TABLE 2
Reviewing, Revision, and Editorial Times (in days) for 222 Accepted Articles

Mean time for the first reviews	31.3 ± 1.1
Mean total time for all the reviews per article	43.8
Mean time for the first revisions	45.1 ± 3.6
Mean total time for all the revisions per article	53.2
Mean editorial time per article	12.0
Mean time, submission to acceptance	109.0

TABLE 3
Numbers of Reviews Per Article

Reviews	Number	Percentage
1	66	30 ± 4
2	129	58 ± 5
3	24	11 ± 2
4	2	1 ± 1
5	1	0 ± 0
Totals	222	100

Do referees recognize important articles and review them more promptly? The answer is "No." I collected the citations in 2009 August (2.6 yr after submission) in the Thomson-Reuters Web of Science and grouped the articles in three categories: 0–10 citations (104 articles), 11–30 citations (82 articles), and 31–193 citations (36 articles). The mean times for the first reviews were, respectively, 31.9 ± 1.6 days, 30.8 ± 1.9 days, and 30.7 ± 2.0 days. Therefore there is no evidence here that referees review potentially-important articles more quickly.

Do authors revise their most important articles more promptly? The answer is again "No." I again grouped the

TABLE 5
MEAN FIRST REVISION TIMES FOR ARTICLES IN SUBFIELDS OF ASTRONOMY

Subfield	Number of articles	Mean First Revision Times (days)
Cosmology	15	45 ± 15
Galaxies, AGN	52	56 ± 9
ISM, nebulae	15	59 ± 13
High-energy, pulsars, supernovae, GRB, QSO	43	36 ± 5
Stars	40	38 ± 7
Sun	39	46 ± 11
Planets, comets	5	...
Atoms, molecules	8	33 ± 24
Instruments	5	...

A folyóiratban publikálás ügymenete

7. Bírálati eljárás: amíg a szerző és a bíráló meg nem egyezik a lepublikálhatóságban. De: kérhető új bíráló, ha elfogultságot érzékelünk

8. Elfogadás után: a kézirat gondozása átkerül a kiadóhoz. Itt érdemes preprintként közzétenni (arXiv.org)

9. Proof (kefelenyomat): elfogadás után jellemzően kb. egy hónappal, a kiadó elküldi a szerzőnek. Fontos: utolsó módosítási lehetőség, csak formai korrekciók (kivéve "Note added in proof" szekció a végén)

10. Megjelenés: a folyóirat honlapján. Online Early szekciók (pl. A&A, MNRAS)

11. Offprint kópiák: a kiadó juttatja el a szerzőnek, díjmentesen. Régebben: 25 papír példány, ma inkább végső változat pdf fájlként

Amikor egy kézirat elkészült

LaTeX-ben szerkesztés esetén a fájlok általában névkonvenciót követnek. Pl. ms.tex, fig1.eps,…,fig10.eps. Nem mindegyik folyóirat követeli meg.

Feltöltés a folyóirat webes szerzői felületén keresztül (pár éve/kisebb folyóiratoknál ma is: ftp-n keresztül feltöltés, szerkesztők emailben értesítése)

Várakozás a referee report-ra (kb. 1 hónap)

3. számú gyakorlat

Küldjünk be egy cikket (online demonstráció)!

Tipikus formulák a referee reportok kapcsán

Your Paper ... has been submitted to a referee. I regret to inform you that the referee finds your paper not acceptable for publication in Astronomy & Astrophysics. A report with the scientific motivation for this advice is attached.

(elsötétült tekintet, egy év munka, vagy félredobás)

Your Paper ... has been submitted to a referee. I regret to inform you that the referee advises not to publish it in its present form. Please find the report enclosed.

We encourage you however to resubmit electronically a completely revised and "drastically shortened" (as the referee puts it)version in which you take the referee's comments into consideration. (Instructions for electronically sending a manuscript can be found at our web-page at: http://www.strw.leidenuniv.nl/~aanda/)

(boldogtalan tekintet, 3 hónap munka)

Tipikus formulák a referee reportok kapcsán

Your Paper ... has been submitted to Dr. ... as referee who advises to accept it after you have made some major revisions. Please find the report attached. The referee would like to see the revised version. It would be helpful if you mark the parts that have been changed, e.g. by putting them in bold face.

(bizonytalan tekintet, 1 hónap munka)

Your paper ... has been submitted to Dr ... as referee who advises to accept it after you have made some minor revisions. Please find the report attached.

(boldog tekintet, 1 nap munka)

Please find enclosed the referee's report on your paper # 8393. The referee (Dr. ...) is favourable to publication.

The referee suggests minor revisions and does not ask to see the paper again.

(boldog tekintet, 1-2 óra munka)

Amikor válaszolunk

- Fogadjuk el az idegen ember kritikáját. Biztos, hogy jól fogalmaztuk meg, amit a referee nem értett meg?

- A válasz tömör, konkrétumokkal teli és a felvetésekre releváns választ adjon

- Nem muszáj egyetérteni a referee-vel…

- …de még véletlenül se személyeskedjünk vele.

- Érdemes szétszedni a bírálatot beidézhető külön pontokra és azokra reagálni

- Az összes módosítást jól láthatóan különböztessük meg (félkövér szedéssel)

Reply to the referee's report on the paper "Ellipsoidal Variability and Long Secondary Periods in MACHO Red Giant Stars" by A. Derekas et al.

> 1. My suggestion is that all the confirmations of the previous results
>   should be clearly emphasized in the Abstract and Summary of the paper.
>   I mean especially results concerning seqs. E and D and paper by
>   Soszynski et al. (2004b). Of course, analysis of the near-infrared K
>   band magnitudes brings new information to our knowledge about variable
>   red giants, but many of the results are obvious from already published
>   optical data (for example that doubling the periods must shift seq. E).

We rephrased the paper in several places to emphasize the confirmation. We note, however, that although Soszynski et al. (2004) plotted Seq. E with the correct doubled period, they did not point out that all the other papers have used wrong periods; furthermore, more recent papers that are independent of the OGLE group still show Seq. E at the wrong period, which suggests that there is an unawareness in the community about this issue.

> 2. I also suggest to clarify the points concerning the amplitude
>   analysis. On the one hand the authors show different amplitude
>   distributions of stars from seq. C and D, on the other hand the
>   pulsation origin of the LSP is suggested. I expect wider discussion
>   about how possible explanations of the LSP phenomenon may influence the
>   amplitude distribution and the blue-to-red amplitude ratio.

While it is true that the amplitude ratio distribution of the LSP stars are different of both the pulsating and binary stars, nevertheless, it is more similar to the pulsating sample (i.e. there is a relatively large color variation along the light curve cycles, reflected by the mean blue to red amplitude ratio of 1.3; there is a correlation between luminosity and amplitude, similarly to the fundamental pulsators, though with a different direction of correlation). A full discussion of the LSP mechanism is beyond the scope of the paper.

> 3. It should be mentioned that the first confirmation of the existence of
>   seq. A' in MACHO data was shown in the conference paper by L.L. Kiss
>   and P. Lah (Mem. S.A.It. Vol. 77, 303).

We mention it.

> 4. I looked carefully at Fig. 1 and I found that some of the stars lying on
>   seq. "E" disappeared in the right panel. What have happened with these

Reply to the referee's comments and suggestions:

> 1 I think that the authors should address the possibility that
> NGC2438 is a runaway star that has been ejected from M46.

=== Done, although we believe the possibility of this is remote.

> I therefore suggest rephrasing the title and the other
> occurances in the text.

=== Done.

> (with 1-2 km/s error). Can you obtain an estimate for the
> real velocity dispersion, i.e., without the contribution of
> the measurement errors?
>
> How accurate at the radial velocity errors of 1-2 km/s? Are
> these "formal errors"? Could the real errors be larger?
> If you have underestimated your radial velocity error by a
> factor of two, the measured velocity dispersion

These are formal errors that come out of the Gaussian fits of the
cross-correlation profile, hence must be taken with caution (Sect. 3.1). We
added a new paragraph in Sect. 4.2. to give further comments.

> - Figures 1, 2, and 3 are clear in colour. Many readers, however,
> will print out the article in black and white. Perhaps it is helpful
> to identify the planetary nebula in Fig. 1 with an arrow, or with
> a non-circular symbol.

=== Done.

> - In Table 2 the radial velocities of the P168502 are different from
> the other lines. Is this deviation expected?

=== Not expected but found an explanation for it: the ~75-80 km/s Doppler-shift
put exactly the P16 line on top of a close blend of two skylines, which were
removed and hence shifted the centroid of the left-over Paschen line. We added a
note on this in Sect. 4.1. Omitting its velocity does not change noticeably the
mean PN velocity.

> - In Figure 5 it would be interesting to see the Gaussian curves
>   of both the cluster stars and the background stars.

=== Done.

> - What is the velocity dispersion of the broad Gaussian that
>   you fit to the histogram? Is it consistent with the velocity
>   dispersion of field stars?

=== 18.4 km/s, consistent with the thick disk.

Reply to the referee's report on the manuscript ME992L "Red variables in the
OGLE-II data base. III. Constraints on the three-dimensional structures of
the LMC and SMC"

by P. Lah, L.L. Kiss & T.R. Bedding.

We wish to thank the referee for very useful comments and suggestions.
We have revised the paper in accordance with the referee's recommendations.
The only point where we disagree is about the natural width of the P-L
relations, however, that was caused by a poor description in the original
manuscript.

In detail:

> (7,8) The first 2 figures are unnecessary, and I recommend inclusion of
> a table with the PL (inverse) regressions and errors that are employed
> by the authors.

=== Done.

> In Sec 2, paragraph iii, the authors claim that the period scatter is
> astrophysical but their analysis and figure 1 do not show this. I
> presume that the 4276 stars were identified as belonging to R2 and R3 PL
> relations based on most significant period in fourier spectrum of their
> 1200+ day dataset. The demonstrated increase of scatter in PL sequences
                        ^^^
> using subsets of light curve data does not prove that this is random
  ^^

=== Our intention was not to demonstrate the increase of scatter in PL sequences
using subsets, but to demonstrate the lack of decrease of scatter in PL
sequences while using longer and longer datasets. We have clarified this issue
in the revised version: if the widths of PL ridges were dominated by errors in
period determinations only, than the ridges should become tighter
when analysing longer sets of observations; the point is that this is not
the case. 8 years of observations reveal practically the same (horizontal) width
in the PL ridges as 4 years (or, as a matter of fact, 2-3 years). We have
removed Fig. 1 and the simple comparison of OGLE-II subsets and kept only the
comparison with MACHO (Wood 2000) and OGLE-II+III (Soszynski et al. 2004).

> Sec 3.1, 3rd paragraph: the estimate of the "maximum variation" in
> distance of LMC bar (2.4 +- 0.7 kpc) needs to be described, in
> particular how the error is estimated, and also if this is interpreted
> as an overall depth on every line-of-sight or as a thinner but inclined
> structure. This should be clarified for LMC and SMC (Sec 3.2) and also
> in abstract.

=== Done.

Elfogadás után

- arXiv.org (astro-ph): preprintként publikussá tenni (átlagosan kétszer idézettebbek). OTKA-támogatás esetén már kötelező!

- Olvassuk el az elfogadásról szóló értesítés apróbetűs részeit is - pl. ha a kiadóhoz nekünk kell eljuttatni a végső változat LaTeX-forrását

- Page charge-os folyóiratnál ekkor kell fizetni. Tipikus árfolyam: $110/oldal. Társszerzők közötti megosztáskor mindenki külön fizet.

- Néhány héttel később a megérkező kefelenyomatra reagáljunk a lehető legrövidebb időn belül (ennek elmaradása akár hónapokkal késleltetheti a megjelenést)

- Esetleg frissíthetjük a preprint-szerveren (tapasztalatok szerint minimális jelentősége van)

- Habitustól függően a szakterület legaktívabb szerzőinek a figyelmébe ajánlhatjuk az iratot.