

## INSTRUCTIONS FOR AUTHORS

The *Minor Planet Bulletin* is open to papers on all aspects of minor planet study. Theoretical, observational, historical, review, and other topics from amateur and professional astronomers are welcome. The level of presentation should be such as to be readily understood by most amateur astronomers. The preferred language is English. All observational and theoretical papers will be reviewed by another researcher prior to publication to insure that results are presented clearly and concisely. Typically, papers will be published within three months of receipt. However, material submitted by the posted deadline may or may not appear in that issue, depending on available space and editorial processing.

The *MPB* will not generally publish articles on instrumentation. Persons interested in details of CCD instrumentation should consult web sites that provide both general information and specifics for given programs, such as:

American Association of Variable Star Observers (AAVSO).  
An excellent CCD photometry handbook can be found on this site. <http://www.aavso.org>

International Occultation Timing Association (IOTA).  
<http://www.lunar-occultations.com/iota/iotandx.htm>

Astrometry measurements should be submitted to the IAU Minor Planet Center <http://minorplanetcenter.org/iau/mpc.html> and are no longer being published or reproduced in the *MPB*.

### Checking Previous Research

When reporting lightcurve results, all authors should consult the Astrophysics Data System (ADS, [http://adsabs.harvard.edu/abstract\\_service.html](http://adsabs.harvard.edu/abstract_service.html)) and the Asteroid Lightcurve Database (<http://www.minorplanetobserver.com/astlc/LightcurveParameters.htm>) to look for previous results on each object on which you are publishing. If using the LCDB, your reference to previous results should not be to the LCDB. Instead, your reference should be to the original author and publication where the currently accepted “best result” is reported, e.g. Lagerkvist (1978). Claims of priority: “These are the first lightcurves reported for asteroid x.” are not appropriate style for the *Minor Planet Bulletin*. Instead: “A search of the Asteroid Lightcurve Database does not reveal any previously reported results for asteroid x.”

If previous results have been reported and they are different from yours (beyond the error margins), try fitting your data to those other periods and report the results of these alternative fits as part of the paper. This can be a brief statement, e.g., “The data were checked against the period of 10.45 h found by Smith (2010) but this produced a very unconvincing fit.”

### Manuscript Preparation

Authors are asked to carefully comply with the guidelines below in order to minimize the time required for editorial tasks.

We strongly encourage that all submissions be made electronically using MS Word or OpenOffice files (saved in MS Word format). If using Word 2007 or 2010, please save in DOC instead of DOCX format.

It is strongly requested that all manuscripts be prepared using the MS Word template found at:

<http://www.minorplanetobserver.com/mpb/default.htm>.

Manuscripts should be less than 1000 words. Longer manuscripts may be returned for revision or delayed pending available space. For general articles, the number of tables plus figures should not exceed two.

For lightcurve articles, authors are encouraged to combine as many objects together in a single article as possible. When presenting data on more than one asteroid, the asteroids should be listed in numerical order throughout – in the abstract, text body, and in any tables. Unnumbered asteroids should be listed after any numbered asteroids and by designation, which is – generally – the order of discovery. See recent *MPB* issues for examples.

Note that your article may not start at the upper left of a page. Therefore, do not worry too much to prepare a “perfect” layout.

### Tables

Tables should be numbered consecutively in Roman numerals. The font size should be large enough to allow for clear reproduction, usually no less than 7 point, preferably 8 point. Keep the number of columns to a minimum and try to avoid multi-line cells, except for headers. Place tables at the end of the text, after any figures. The layout editor will place them how and where appropriate. Generally, use only white backgrounds for tables.

Please do not embed tables as objects, e.g., as an Excel spreadsheet table. Instead, create a text box and insert a Word table within the text box. Turn off the “Anchor to Text” property in order to make it easier to change the layout of the paper as needed. Using a text box is particularly important if the table will span more than one column. *Do not* use section breaks in order to span a table across the page.

### Figures

Figures should be numbered consecutively in Arabic numerals. When only one or two figures are involved, you can insert them within the body of the text. If there are several figures, they should be placed after the text (usually after the References section). It is preferred that you insert the graphics yourself, even if only at the end of the article, instead of supplying them as a set of files that must be inserted by the editors.

Use 300 dpi or higher resolution. Generally, use only white backgrounds for figures and solid colors for symbols. If the figure is in color, make it such that the grayscale rendering of the figure is *easily* legible. For example, yellow symbols on a white background are *not* suitable. Labeling should be large enough to be easily readable when reproduced.

Do not use color as the sole feature distinguishing data series in a figure. The black-and-white rendering of the archival printed copy of *MPB* might not show any differences.

*If at all possible, use GIF or PNG format for all figures since these are mostly lossless but highly compressed.* Plots in JPG format can degrade, making symbols hard to read. BMP format files are much larger and can cause problems when several megabytes in size.

Lightcurve plot symbols should be easily differentiated from one another. Each lightcurve should contain a legend that identifies each symbol with a date or other reference, the name of the object, the period (and error). If there is room, also include the JD for zero phase or the first data point of a raw data plot. See recent sample issues for examples.

Please do not embed figures as objects, e.g., Excel charts. If necessary, make a screen shot of the chart and edit it in a graphics editor, saving it as a GIF or PNG file. Use Insert | Picture | File on the Word main menu to insert graphics.

If inserting a figure that will span more than one column, use a text box with appropriate wrapping to hold the figure. Do not use section breaks to change to a single column. *It is very rare that a figure needs to be more than one column wide.*

### Equations and Special Symbols

If including equations with Greek characters or special symbols for any reason, please use only Times New Roman, Arial, or Symbol (Windows TrueType) fonts. Use the extended characters of these fonts to insert special characters such as eastern European diacritical characters. This is done on a Windows machine by ALT+XXXX, where XXXX is a four-digit code *entered on the numeric keypad*. The Character Map system utility can also be used to locate and copy the necessary character.

When special characters are used, please include a PDF that *clearly* shows how those characters should appear.

### Accepted Abbreviations and Other Conventions

The following abbreviations for units are preferred in the *MPB*:

days	d
degrees	° (Alt+0176, see notes under “Equations and Special Symbols”), or deg
hours	h
magnitudes	mag
meters	m
minutes	min
plus/minus	± (Alt+0177, see notes under “Equations and Special Symbols”)
seconds	s

A space should separate a value and unit, e.g., 7.1334 h. An exception to this is when the unit is used as part of a description, e.g., 0.4-m telescope, 14-inch SCT, or 30-s exposures.

If including a value and error, include the units only once, after the error, e.g.,  $7.144 \pm 0.005$  h.

“lightcurve” is a single word.

Use a leading zero for a number whose magnitude is less than 1, e.g. 0.35.

When referring to a numbered asteroid that is named, do not put the number in parentheses, e.g., 1 Ceres instead of (1) Ceres.

When the asteroid is numbered but has only its MPC designation, put the number in parentheses, e.g., (178956) 2001 QN185. Note that the number in the designation is not subscripted.

### Dates

In order to standardize dates and avoid confusion due to different formats, we prefer that ANSI date format be used, i.e., year-month-day. For example, 2010 Nov 12 or 2010 November 12 when written in full text. If using only the month and year, put the year before the month, i.e., 2008 November.

If using only month and day and writing out the month name, put the month first, e.g., November 12 or Nov. 12. Month names (full or three-letter abbreviation) are preferred in text body instead of numbers, i.e., Aug 4 instead of 08/04, to avoid any confusion (is 08/04 August 4 or April 8?)

In a table, such as giving a range of dates for observations, numbers can be used to save space. The column head (or table caption) should clearly indicate the format, e.g., “mm/dd”. Unless the year changes, include only the month and day in the table entries but indicate the year in the column header (or table caption).

### References

Authors must closely follow the standard reference style for the *Minor Planet Bulletin*, or their manuscript may be rejected or delayed until a subsequent issue. References should be cited in the text such as Harris and Young (1980) for one or two authors or Bowell et al. (1979) for more than two authors. If the author and year are within the parentheses, separate the author and year with a comma. If multiple references are given within parentheses, separate the references with a semicolon. For example: “The results are in good agreement with earlier works (Smith, 1999; Jones, 2010).”

The reference section should list papers in alphabetical order of the first author’s last name. Include the full list of authors in the citation in the References section, unless it exceeds 15. In that case, use “and xxx colleagues” (without the quotes) as the “last author” where xxx is the number of unlisted authors. Use surname, initials for each author, separating author names with commas (e.g., Astronomer, J.Q., Assistant, H.I.S.)

Include the full title of the work in addition to the publication, volume, and page numbers. Include *both* beginning page number and ending page number for articles spanning more than one page. The reference format for a journal article, book chapter, and book are as follows:

Harris, A.W., Young, J.W., Bowell, E., Martin, L.J., Millis, R.L., Poutanen, M., Scaltriti, F., Zappala, V., Schober, H.J., Debehogne, H., and Zeigler, K. (1989). “Photoelectric Observations of Asteroids 3, 24, 60, 261, and 863.” *Icarus* **77**, 171-186.

Pravec, P., Harris, A.W., and Michalowski, T. (2002). “Asteroid Rotations.” In *Asteroids III* (W.F. Bottke, A. Cellino, P. Paolicchi, R.P. Binzel, eds.) pp 113-122. Univ. Arizona Press, Tucson.

Warner, B.D. (2006). *A Practical Guide to Lightcurve Photometry and Analysis*. Springer, New York.

### Manuscript Submission

All material should be submitted electronically to the *Minor Planet Bulletin* editor, Professor Richard Binzel:

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