

IMPORTANT NOTE!

This is an example showing how the publication in OEJV should look like and what is essentially requested. We demonstrate here the description how the paper should be structured. Please, keep the form of the document (line spacing, font type, font size of the text, sections, labels etc, spaces between titles of sections, labels and tables, labels and figures, spaces between sections etc., just to keep the paper in a form as is this template).

**!!!!!!DO NOT FORGET TO REMOVE THIS!!!!!!
!!TEXT WHEN USING THIS!!
!!!!!!TEMPLATE FOR YOUR OWN PAPER!!!!!!**

Essential typographical rules that should be followed:

- _ do not use boldface or colour text,
- _ use decimal point, not a decimal comma,
- _ units, indexes, marks of derivatives (d) are in normal face font (e.g. dx),
- _ variables, physical units, filters, counting indexes are typed in italic,
- _ software should be typed in capital letters,
- _ new page should not begin with one row,
- _ tables and figures should be place after its notification in the text,
- _ a row should not end with preposition or short conjunction.

A more comprehensive description of typographical rules can be found in 'Instructions to authors' file at the <http://oejv.physics.muni.cz/templates/>

TITLE OF THE PAPER

SURNAME OF THE FIRST AUTHOR, FIRST NAME OF THE FIRST AUTHOR¹; DOE, JANE² AND DOE, JOHN^{1,2}

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Abstract: A brief abstract of the paper should appear here. The objectives of the paper, what was done (observation, analysis etc.), what are the main results of the paper. A brief abstract of the paper should appear here. The objectives of the paper, what was done (observation, analysis, etc.), what are the results of the paper.

1 Introduction

In this section the **motivation for the study** (why was the object observed, studied) and, similarly as in abstract, brief **description of the paper and its structure**, should be described. **Identification of studied object(s)**, **cross-identifications** (name in at least two common catalogues as GCVS, TYC, GSC, USNO etc. in correct format of the catalogue), **basic characteristics of the object** (variable type, brightness, spectral type etc.), **what is already known** about the object from literature and everything else what is important for the paper.

2 Observation – theoretical background of used methods – everything what should be done before the analysis

Description of observation should appear here. This means that

- **place of observations**,
- **type of observations** - photometry, spectroscopy, astrometry etc.,
- **used telescope** (type, diameter, focal length, additional informations),
- **detector specifications** - camera and chip characteristics, filters used,
- **field of view** (FOV),
- **length of exposures** in used filters,

should be mentioned. In addition, information about the **number of observing nights** and their **time span** (see Tab. 1 which shows an example of observation log table), weather conditions and other circumstances can be described here.

When differential photometry was performed, **identification** and information about **comparison stars** is required (position, brightness, colour indices, example of summary is in Tab. 2). To be as illustrative as possible, using tables and figures is recommended. In the text

you can refer to them as was already shown, and as for example: The observation log can be found in Tab. 1. The FOV with identification of the stars is in Fig. 1.

Table 1: This is an example of a table. Its caption could be e.g.: Summary of observations (or alternatively Observation log). Columns B, V, R_c, I_c give number of usable exposures in particular filters.

Session	Time-span [hours]	B	V	R_c	I_c
20 March, 2010	5.2	71	81	81	77
23 March, 2010	6.0	80	90	90	83
06 February, 2011	3.1	42	44	47	40
Total	14.3	193	215	218	200

When objects are described, the author should give a note about **data processing** - dark frame and flat field corrections, type of **photometry** (aperture, profile, other method), what **software** was used for data processing etc. The same applies for **spectroscopy**. For example you can write something similar like this: The frames were dark frame and flat field corrected in PHTSFT¹ software (Doe, 2005). Here you can see, how **footnotes** should be used and how **citation** works. More about citations can be found in the Sec. 5.

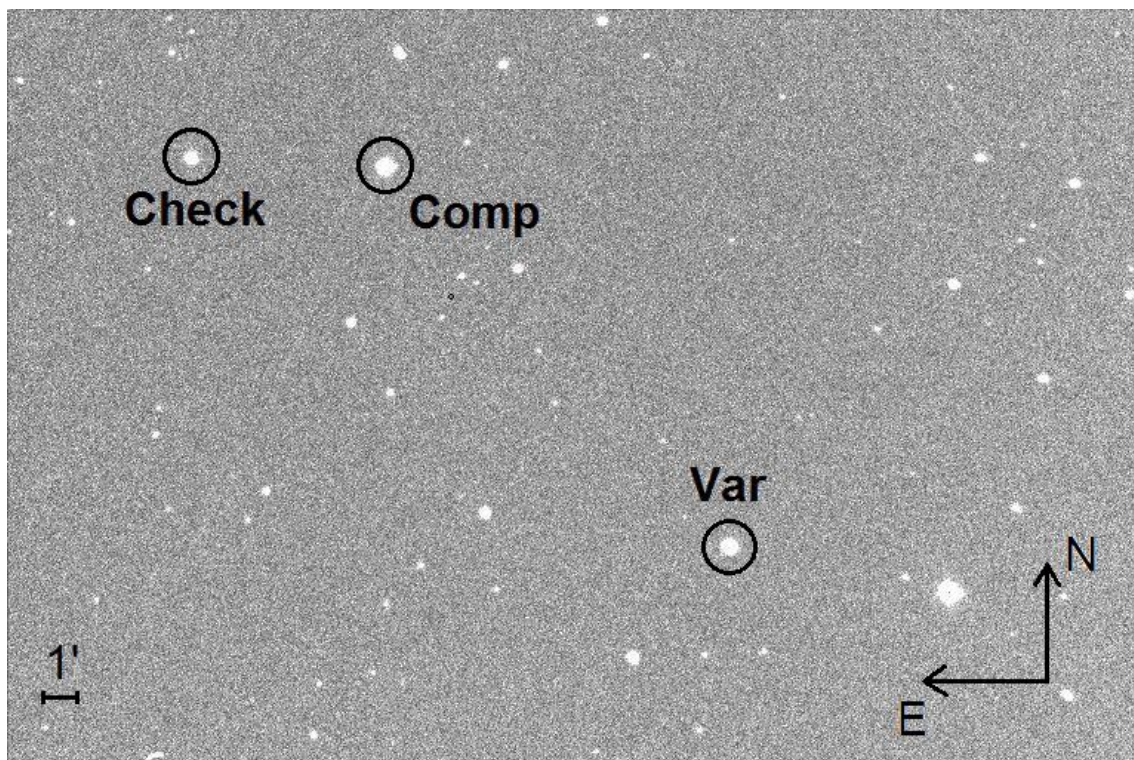


Figure 1: A sample image showing the FOV with identification of stars. The way how to identify stars, and form of other marks is arbitrary, but should be well pronounced. Orientation and scale marks are mandatory.

¹ <http://somewhere.net/something/phtsft/>

When basic data reduction description is finished information about **data quality** should be given. For example you can use the standard deviation of points between comparison stars as a measure of photometry quality and write: Photometry was better than 0.05mag in all filters (RMS of differential brightness comp-check in V was 0.025mag).

Table 2: Characteristics of comparison stars. Magnitudes are taken from Doe, Doe & Doe (2005).

Star	ID	RA[h m s]	DEC [° ' "]	B [mag]	V [mag]
Comp	GSC 03850-01262 = TYC 3850-01262-1	13:34:32.8	+54:11:30.3	10.226(27)	9.636(22)
Check	GSC 03850-01051 = TYC 3850-01051-1	13:35:15.6	+54:11:48.7	11.692(66)	11.016(61)

If you performed **additional calibrations**, e.g. colour calibration, absolute photometry etc. it should be also described and explained (method, transformation equations (for example Eq. 1), transformation coefficients, figure showing the dependences etc.). This is an example of writing an equation:

$$\Delta B - \Delta v = C_b(\Delta b - \Delta v) \quad (1)$$

3 Data analysis

This section is dedicated to description of **used methods** for **data analysis, simulations**, and **description of the data analysis** process itself. You should mention how the data were cleaned (if they were), what method you used, which software was used etc. Again, everything should be as illustrative as possible, therefore tables and figures are highly recommended to use.

Of course, data analysis produces uncertain data, therefore **uncertainties** of values are required! You should also comment on how errors were estimated (e.g. least-squares method, Monte Carlo simulation, bootstrap method etc.), discuss their sizes, and mention used software (script). After the analysis you should evaluate the quality of the results and discuss their relevance.

The short **format** of writing **uncertainties** (as a number with relevant digits with uncertainty rounded to one or two last digits in parentheses) is preferred. For example B magnitude in Tab. 2: 10.226(27) means 10.226 ± 0.027 . With one valid digit it will be 10.23(3) mag, alternatively 10.23 ± 0.03 mag.

4 Results

In this section **results** should be discussed in detail, should be put into wider circumstances, and should be compared with known facts.

5 Conclusions or Summary

This section serves as **summary** of the whole paper. In a short paper it could be merged with Sec. Results. Similarly as in abstract, you should briefly describe your entire work with putting emphasis on your results.

5.1 Example of subsection

Here are several examples how to give **references** in text in various situations:

- One author: Doe (2005),
- Two authors: Doe & Doe (2005),
- Three authors: Doe, Doe & Doe (2005),
- More than three authors: Doe et al. (2005). In this case, first three authors should be explicitly given.

Generally, when **citation** is at the end of the sentence, it is in parentheses in the form (author, year), (author & author, year), (author, author & author, year) or (author et al., year). EXAMPLE: The ASAS survey has been observing since 1997 (Pojmanski, 2005). When reference is at the beginning of the sentence or when you say that something was done by somebody then it is in the form of Author (year). EXAMPLE: Pojmanski (2005) analysed the data stored in the ASAS database. Another EXAMPLE: Data from ASAS database were analysed by Doe, Doe & Doe (2005).

The format of writing references in Sec. References is as follows: Surname of the first author, first letter of first author's first name year, journal, issue, page. When the reference comes from the conference proceedings, additional information are requested. The format should be obvious from examples in sec. References.

In addition, a hypertext link redirecting a reader to the cited paper at the ADS server should be created behind the reference item. This should be in a form of BIBCODE which format is described [here](#). Bibcode of the vast majority of papers can be found at the [ADS server](#).

Acknowledgements: Here you can express **your gratitude** to anybody. In addition to your personal thanks, usually databases (ADS, VSX, CDS, Simbad etc.) and financial support are noted here.

References

- Pojmanski, G., 2005, ASAS-3, <http://www.astrouw.edu.pl/asas/?page=main>
Doe, J. 2005, A&A, 35, 3, [2005A&A....35....3D](#)
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Doe, J. 2001, John Doe's poster, X-Ray Astronomy, in proceedings to Antarctic conference Vol. 1, held 12-15 September 2001, Prague, Czech Republic, ed. Jane Doe, Brno University Press, 2001, p. 5., [2001aconf...1....3D](#)

IMPORTANT NOTE (should be removed)!

In short papers it is not necessary to divide the text into sections - a continuous text can be used instead. Nevertheless, the structure of the paper has to be kept. Sections Abstract and References are obligatory.

In discovery papers, when reporting new variable stars or new elements of known variables, the information required in the GCVS (cross-identification, type, max and min magnitude, band, period and epoch for periodic variables) should be given in a paper.

Additional information can be found in 'How to publish with OEJV' file at the <http://oejv.physics.muni.cz/templates/>