GUIDELINES FOR PAPER PREPARATION FOR THE JOURNAL OF *COMPUTER OPTICS*

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Abstract

The journal is intended for researchers and specialists active in the following research areas: diffractive optics; optical information technologies; nanophotonics and nanostructure optics; image analysis and understanding, pattern recognition; geoinformation technologies; digital image/signal processing, information coding and protection. In accordance with decision N. 6/6 of the Presidium of the Higher Certifying Commission (VAK) of the RF Ministry of Education and Science of 19 February 2010, the journal of *Computer Optics* has been included into the VAK list of peer-reviewed journals and periodicals where key research results obtained as part of a degree thesis must be published.

Key words: guidelines for paper preparation, Computer Optics, image processing.

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Introduction

The journal is included into the database of the Russian Science Citation Index (RSCI), with its 2013 RSCI impact-factor being 0.271. All the issues of *Computer Optics* since 1987 are also presented electronically on the website of the *Scientific eLIBRARY* (SEL, www.e-library.ru) and on the Journal website at http://www.computeroptics.smr.ru.

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The materials should contain new research results that are not currently under consideration for publication elsewhere. The paper must contain a clear statement of the problem, description of research methods, research findings and application areas.

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For the manuscript to be accepted for the review, make sure to include the following.

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    1.4. Key words: for subject areas of *diffractive optics; optical information technologies; nanophotonics and*

nanostructure optics at least three *key words* should be taken from the *Optical Society of America* (OSA) database at http://www.opticsinfobase.org/oe/submit/ocis.

1.5. Cite as article citation format (including DOI).

2. Text. Your manuscript should be arranged as follows: Introduction (not numbered), Main text (may be divided into numbered Sections and sub-Sections), Conclusion (not numbered), Acknowledgements (if appropriate, not numbered), and List of References (in the RSCI format).

3. At the end of the article, provide a brief biographical sketch (10 – 15 lines) for each contributing author, including

- First names and surname in full;
- Scientific degree;
- Academic rank, position, affiliation (for each position held);
- Research interests (up to 15 words);
- Email address; and
- Postal address (not published).

Page layout

The manuscript should be typed on A4 pages with a book-style (portrait) layout. Use mirror margins. Margins: upper- 25 mm, lower- 30 mm, inside- 23 mm, outside- 17 mm. Page header- 15 mm, page footer- 20 mm, with the page headers and footers of even and odd pages being different.

Text

The main text should be set in two equal-width (82 mm) columns separated by a 6-mm spacing (the separator should be enabled) using the standard style: 10-point Times New Romans font, a 5-mm paragraph indent, full formatting. Use automatic hyphenation. For indention, use the **Format → Indent** function. Do not use blanks when starting a new line. Extra blanks between words in the text and paragraph skipping within the same section are also inadmissible.

The paper title is typeset in 10-point Times New Roman **Bold** font, full-page width, centered, upper case, and paragraph indent- 0-mm. Do not use full stop.

Author(s) full name(s), position(s), contact information (email address), and the institution name are typeset in 10-point Times New Roman *Italic*, single-column, centered, paragraph indent- 0-mm.

The Abstract and Key words are typeset in 10-point Times New Roman font, single-column, left and right indents- 1.5 cm, paragraph indent- 0.5 mm. A comma or a semicolon separates each key word or word combination.

Section headings are typeset in 10-point Times New Roman **Bold**-*Italic* font, column centered, 0-mm paragraph indent. Do not use full stop.

Math equations

Equations should be typeset in Microsoft Equation (not higher than 3.0 version) or MathType. Equations presented in MS Equation 2007/2010/2013 are not admissible. The formulae should be typeset with left 5-mm margin, left justification, 3-point margins on the left and right of the equation. Latin letters should be typeset in 10-

point Times New Roman font and Greek letters should be typeset **upright** in 10-point Symbol font. Full editor's settings are shown in Fig. 1.

We encourage you to typeset the in-text math and Greek letters using Tables of Symbols (**Insert → Symbol → <choose the symbol> → Insert → Close**).
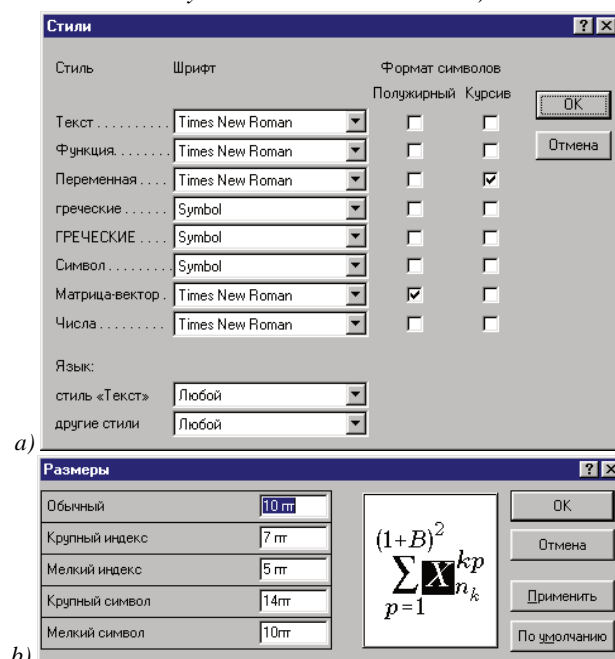

Fig. 1. Equation editor's settings.

Formulae should be printed on a new line. Equations should be numbered consecutively at the right-hand margin, in parentheses.

$$Equation\ example\ . \qquad\qquad (1)$$

If the equation is too long to fit in the above-described length limit it can be typeset through the entire page width (up to 17 cm long, including the equation number), the margins being the same. Use the "single column" mode for such an equation. Complex formulae should be typeset as a whole and not in parts.

Illustrations (images)

All illustrations should be submitted as separate files linked to the document rather than being placed into the text. The images should be linked using the Word menu: "insert" – "picture" – "from file" (Fig. 2a); then, using "insert a picture" window, choose "link to file" from the pop-down menu "insert/ link to file/insert and link" (Fig. 2b).

The linking route to the image file must be relative, tracing the linked image file from the document to which it is to be linked. The image files should be named according to figure numbers in the body of the manuscript (e.g., 09.tif, 22b.jpg, or 22g.jpg).

Illustrations should be placed directly after the text paragraph in which they are mentioned for the first time. Large-sized (full-page) illustrations are not encouraged (instead, we recommend selecting an informative part of a large-sized image).

Illustrations created using MS Office are not accepted.

With color illustrations slowing down and making the publication process costly, we accept them in exceptional cases, when topics related to color image processing are reported.

The image can have a width of up to 82 mm; or alternatively, can have a full-page width (17 cm) to avoid it being too small and illegible.

Use TIF format for raster (half-tone) images, PNG or GIF format for black-and-white and grey images, and JPG format for color images, with 600dpi resolution. If images contain a text or sharp color contrast, the use of TIF or PNG format is preferable. Screenshots should be presented with a maximal possible resolution, enabling a sharp and high-contrast picture.
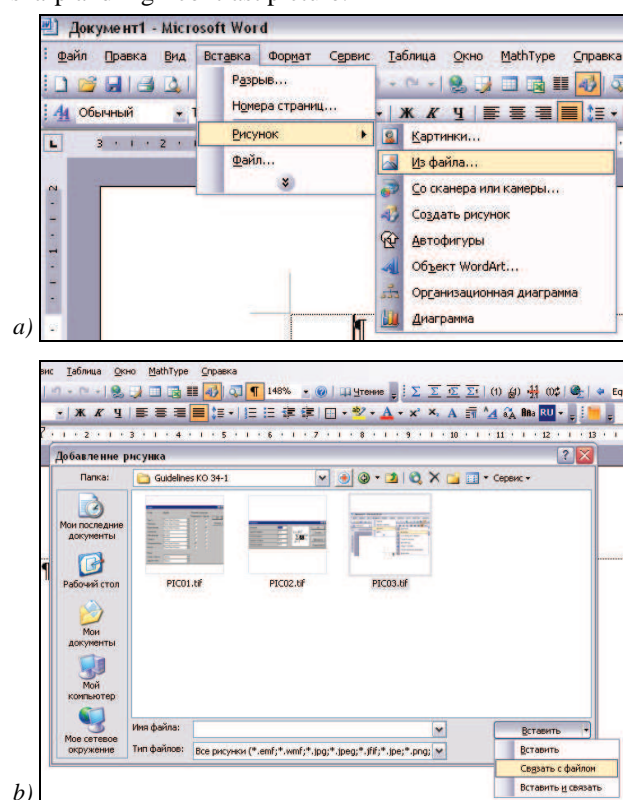

a)

b)

Fig. 2. Illustration linkage

Vector images (schemes, diagrams, plots) should be drawn using either a CorelDraw 11-13 (CDR files) or Inkscape (SVG, 'simple SVG' format) and exported to Windows Metafile (WMF, preferable) or Encapsulated PostScript (EPS) files. Together with the manuscript, it is required to submit both *.wmf (or *.eps) files and the original *.cdr, *ai, *.svg files. Lines should be at least 0.2 mm thick. For illustrations (schemes, plots) created using mathematical or simulation software these should be submitted in two formats, namely, a vector format (CDR, AI, WMF, EPS, SVG, EMF are accepted) and a copy of the raster file (TIF, BMP, PNG), except for JPG. Submission of a vector format is obligatory. Raster schemes and plots, including scanned or traced ones, inserted in a vector file are not considered as vector files. In-figure inscriptions should be typeset in 9-point black Times New Roman *Italic*.

Figure captions

Figure captions should be put after the word *Fig.*, followed by a consecutive number, and typed in 9-point Times New Roman *Italics* (column-centered, 3-point left and right margins). The full stop should be used after the number and should not - at the end.
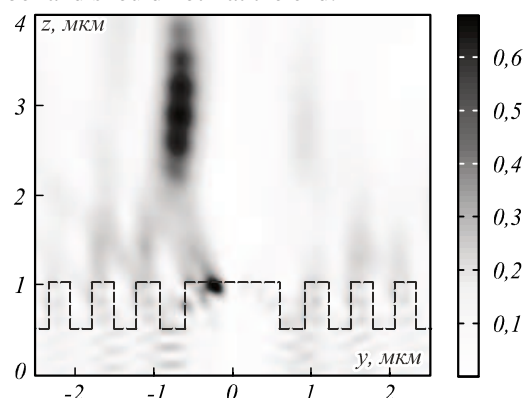

Fig. 3. Example mixed (vector and raster) illustration

The use of figure captions is mandatory.

If there are several figures under the same caption, these are denoted with letters a, b, c, etc. The in-text references to the illustrations are made as follows: Fig. 2*a*; Figs. 3*a* and *b*; Fig. 8*a*, *b*; Fig. 9*a-d* (*italicized* lettering).

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For the in-table text, use a 9-point Times Roman font. The width may be either single-column or full-page.

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It is mandatory to title Tables.

Bibliography

In-text references to the bibliography list should be put in brackets and separated by comma or hyphen: [1, 2], [3-5].

References should be numbered consecutively in the order of their citation in the body of the paper.

The text is typeset in **References** style: 9-point Times New Roman font, paragraph margin 5 mm, full-column formatting, numbered.

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6. Article in a periodical [6].

7. Article in a foreign periodical [7].

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9. Article in a multi-volume publication [9].

10. RF patent for an invention [10] (date of patent publication should be indicated).

11. Handbook [11].

12. Online Source (website) [12].

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(Examples of references to published works contributed to by four or more authors can be found at [1, 4, 7]).

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-- Full title of an article/book/conference proceeding;

-- DOI (if any);

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-- For books: City, Publishing House, and year of publication, pagination (or book's length);

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-- For Online Sources: Authors, page/document title, page/document online address, the date of access.

If a source has a DOI, it is mandatory to give it in the **References**.

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Appendix
Most commonly used symbols

" (upper)	Alt + 0147	″ (second)	Alt + 0178 (Symbol)	·	Alt + 0183
" (upper)	Alt + 0148	∞	Alt + 0165 (Symbol)	·	Letter «X» (Symbol)
‰	Alt + 0137	∂	Alt + 0182 (Symbol)	≅	Sign «@» (Symbol)
©	Alt + 0169	÷	Alt + 0184 (Symbol)	≡	Alt + 0186 (Symbol)
§	Alt + 0167	≠	Sign # (Symbol)	≤	Alt + 0163 (Symbol)
↔	Alt + 0171 (Symbol)	←	Alt + 0172 (Symbol)	≥	Alt + 0179 (Symbol)
→	Alt + 0174 (Symbol)	↑	Alt + 0173 (Symbol)	↓	Alt + 0175 (Symbol)
° (degree)	Alt + 0176	±	Alt + 0177		
′ (minute)	Alt + 0162 (Symbol)	×	Alt + 0215		

Symbol codes are typed on a small numeric keypad (with "Num Lock" switched on) with English keyboard layout. Some symbols may call for the use of Symbol font.

Authors' information

Sergey Valentinovich Smagin (b. 1963) graduated from Kuibyshev Polytechnical Institute in 1985, majoring in Engineering Technology, Metalcutting Equipment and Tools. Currently he works as the leading programmer at the Image Processing Systems Institute of RAS – Branch of the FSRC "Crystallography and Photonics" RAS. Research interests are computer graphics processing, programming, and 3D designing. E-mail: *ssv@smr.ru* .

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