

Universal manuscript template for Optica Publishing Group journals

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Abstract: This template contains important information on submissions to Optica Publishing Group journals. We encourage authors to focus foremost on their content and not on formatting. The template is provided as a guide, but following the visual styling is optional. Each manuscript will be formatted in a consistent way during production. Authors also have the option to [submit articles](#) to the Optica Publishing Group preprint server, [Optica Open](#). You may find it helpful to use our optional [Paperpal manuscript readiness check](#) and [language polishing service](#). Note that copyright and licensing information should not be added to your journal or Optica Open manuscript.

1. Introduction

We encourage authors preparing submissions to focus foremost on their content and not on formatting. This template is provided as a guide, but following the visual styling is optional. Each manuscript will be formatted in a consistent way during production. Authors also have the option to [submit articles](#) to the Optica Publishing Group preprint server, [Optica Open](#). You may find it helpful to use our optional [Paperpal](#) manuscript readiness check and [language polishing service](#).

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```
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This format will generate the following appearance:

44 **AUTHOR ONE¹ AND AUTHOR TWO^{2,*}**

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51 addition to the corresponding author designation.

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53 `Author Two\authormark{2,\dag,*}}`

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56 `Optica Publishing Group, 2010 Massachusetts Avenue NW,`
57 `Washington, DC 20036, USA\\`
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61 `this work.\\`
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67 ²*Publications Department, Optica Publishing Group, 2010 Massachusetts Avenue NW, Washington, DC*
68 *20036, USA*

69 [†]*The authors contributed equally to this work.*

70 **xyz@optica.org*

71 **3. Abstract**

72 The abstract should be limited to approximately 100 words. If the work of another author is cited
73 in the abstract, that citation is written out as, for example, *Opt. Express* **32**, 32643 (2024), and a
74 separate citation should be included in the body of the text. The first reference cited in the main
75 text must be [1]. There is no need to include numbers, bullets, or lists inside the abstract. Do not
76 add the licensing or copyright statement at submission.

77 **4. Assessing final manuscript length**

78 The Universal Manuscript Template is based on the Express journal layout and will provide
79 an accurate length estimate for *Optics Express*, *Biomedical Optics Express*, *Optical Materials*
80 *Express*, *Optica Quantum*, and *Optics Continuum*. *Applied Optics*, *JOSAA*, *JOSAB*, *Optics*
81 *Letters*, *Optica*, *Optica Quantum*, *Optics Continuum*, and *Photonics Research* publish articles
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83 manuscript page count (in increments of 1/4 page) by 60%. For example, 11.5 pages in the
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85 that the estimate is only an approximation, as treatment of figure sizing, equation display, and
86 other aspects can vary greatly across manuscripts. Authors of Letters may use the length-check
87 template for a more-accurate length estimate.

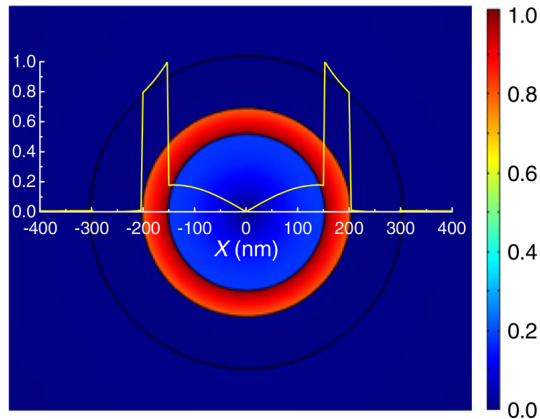


Fig. 1. Sample caption (Fig. 2, [1]).

88 5. Figures, tables, and supplementary materials

89 5.1. Figures and tables

90 Figures and tables should be placed in the body of the manuscript. Standard \LaTeX environments
 91 should be used to place tables and figures:

```

92 \begin{figure} [htbp]
93 \centering\includegraphics[width=7cm]{opticafig1}
94 \caption{Sample caption (Fig. 2, \cite{Yelin:03}).}
95 \end{figure}

```

96 For figures that are being reprinted by permission of the publisher, include the permission line
 97 required by that publisher in the caption. Please refer to the information on [permissions and](#)
 98 [reprints](#) for guidance on figure permissions and image use.

99 To meet accessibility requirements, do not rely solely on color to identify elements in figures
 100 (such as blue and red curves). Instead, use shapes or other features along with color. For example,
 101 you can use dashed and dotted lines, different shapes for data points, text labels pointing to the
 102 color features, numbering, etc.

103 Table 1, below, provides a formatting example. Note that tables should have titles and not
 104 captions. To include additional information, use footnotes as shown in this example:

Table 1. Shape Functions for Quadratic Line Elements

Local Node	$\{N\}_m$	$\{\Phi_i\}_m (i = x, y, z)$
$m = 1$	$L_1(2L_1 - 1)$	Φ_{i1}
$m = 2$	$L_2(2L_2 - 1)$	Φ_{i2}
$m = 3$	$L_3 = 4L_1L_2$	Φ_{i3}

105 See Table 2 for examples of how to format different types of table cells.

Table 2. Examples of Table Markup^{a,b}

Ten normal cells				
cell1	cell2	cell3	cell4	cell5
cell6	cell7	cell8	cell9	cell10
cell1 and cell2 merged.				
cell1 and cell2		cell3	cell4	cell5
cell6	cell7	cell8	cell9	cell10
cell1 and cell6 merged				
cell1 cell6	cell2	cell3	cell4	cell5
	cell7	cell8	cell9	cell10
A mix of the two over twenty cells				
cell1 and cell2		cell3	cell4	cell5
cell6 cell11 cell16	cell7	cell8	cell9	cell10
	cell12	cell13	cell14	cell15
	cell17	cell18	cell19	cell20
Math environments in merged cells				
cell1	cell2	cell3	$\frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$	
cell6	cell7	cell8		

^aPlease see the source of this file for macros used.

^bYou can find further table support at [Overleaf](#).

106 **5.2. Supplementary materials in Optica Publishing Group journals**

107 Our journals allow authors to include supplementary materials as integral parts of a manuscript.
 108 Such materials are subject to peer-review procedures along with the rest of the paper and should be
 109 uploaded and described using our Prism manuscript system. Please refer to the [Author Guidelines](#)
 110 [for Supplementary Materials in Optica Publishing Group Journals](#) for more information on
 111 labeling supplementary materials and your manuscript. For preprints submitted to Optica Open a
 112 link to supplemental material should be included in the submission.

113 **Authors may also include Supplemental Documents** (PDF documents with expanded
 114 descriptions or methods) with the primary manuscript. At this time, supplemental PDF files are
 115 not accepted for partner titles, JOCN and *Photonics Research*.

116 **5.3. Sample Dataset Citation**

- 117 1. M. Partridge, "Spectra evolution during coating," figshare (2014), <http://doi.org/10.6084/m9.figshare.1004612>.
 118

119 **5.4. Sample Code Citation**

- 120 1. C. Rivers, "EpiPy: Python tools for epidemiology," figshare (2014), <http://doi.org/10.6084/m9.figshare.1005064>.
 121

122 6. Mathematical and scientific notation

123 6.1. Displayed equations

124 Displayed equations should be centered. Equation numbers should appear at the right-hand
125 margin, in parentheses:

$$J(\rho) = \frac{\gamma^2}{2} \sum_{k(\text{even})=-\infty}^{\infty} \frac{(1+k\tau)}{[(1+k\tau)^2 + (\gamma\rho)^2]^{3/2}}. \quad (1)$$

126 All equations should be numbered in the order in which they appear and should be referenced
127 from within the main text as Eq. (1), Eq. (2), and so on [or as inequality (1), etc., as appropriate].

128 7. Back matter

129 Back matter sections should be listed in the order Funding/Acknowledgment/Disclosures/Data
130 Availability Statement/Supplemental Document section. An example of back matter with each
131 of these sections included is shown below. The section titles should not follow the numbering
132 scheme of the body of the paper.

133 **Funding.** Content in the funding section will be generated entirely from details submitted to Prism.
134 Authors may add placeholder text in this section to assess length, but any text added to this section will be
135 replaced during production and will display official funder names along with any grant numbers provided.
136 If additional details about a funder are required, they may be added to the Acknowledgment, even if this
137 duplicates some information in the funding section. For preprint submissions, please include funder names
138 and grant numbers in the manuscript.

139 **Acknowledgment.** Additional information crediting individuals who contributed to the work being
140 reported, clarifying who received funding from a particular source, or other information that does not fit the
141 criteria for the funding block may also be included; for example, “K. Flockhart thanks the National Science
142 Foundation for help identifying collaborators for this work.”

143 **Disclosures.** Disclosures should be listed in a separate nonnumbered section at the end of the manuscript.
144 List the Disclosures codes identified on the [Conflict of Interest policy page](#), as shown in the examples below:

145 ABC: 123 Corporation (I,E,P), DEF: 456 Corporation (R,S). GHI: 789 Corporation (C).

146 If there are no disclosures, then list “The authors declare no conflicts of interest.”

147 **Data Availability Statement.** A Data Availability Statement (DAS) is required for all submissions
148 (except JOCN papers). The DAS should be an unnumbered separate section titled “Data availability” that
149 immediately follows the Disclosures section. See the [Data Availability Statement policy page](#) for more
150 information.

151 Optica has identified four common (sometimes overlapping) situations that authors should use as guidance.
152 These are provided as minimal models. You may paste the appropriate statement into your submission and
153 include any additional details that may be relevant.

154 1. When datasets are included as integral supplementary material in the paper, they must be declared
155 (e.g., as “Dataset 1” following our current supplementary materials policy) and cited in the DAS, and
156 should appear in the references.

157 **Data availability.** Data underlying the results presented in this paper are available in Dataset 1,
158 Ref. [8].

159 2. When datasets are cited but not submitted as integral supplementary material, they must be cited in
160 the DAS and should appear in the references.

161 **Data availability.** Data underlying the results presented in this paper are available in Ref. [8].

162 3. If the data generated or analyzed as part of the research are not publicly available, that should be
163 stated. Authors are encouraged to explain why (e.g. the data may be restricted for privacy reasons),
164 and how the data might be obtained or accessed in the future.

165 **Data availability.** Data underlying the results presented in this paper are not publicly available at
166 this time but may be obtained from the authors upon reasonable request.

167 4. If no data were generated or analyzed in the presented research, that should be stated.

168 **Data availability.** No data were generated or analyzed in the presented research.

169 Data availability statements are not required for preprint submissions.

170 **Supplemental document.** A supplemental document must be called out in the back matter so that a link
171 can be included. For example, “See Supplement 1 for supporting content.” Note that the Supplemental
172 Document must also have a callout in the body of the paper.

173 8. References

174 Proper formatting of references is important, not only for consistent appearance but also for
175 accurate electronic tagging. Please follow the guidelines provided below on formatting, callouts,
176 and use of Bib_TE_X.

177 8.1. Formatting reference items

178 Each source must have its own reference number. Footnotes (notes at the bottom of text pages)
179 are not used in our journals. List up to three authors, and if there are more than three use *et al.*
180 after that. Examples of common reference types can be found in the [Author Style Guide](#).

181 The commands `\begin{thebibliography}{} and \end{thebibliography}` for-
182 mat the section according to standard style, showing the title

183 **References.** Use the `\bibitem{label}` command to start each reference.

184 8.2. Formatting reference citations

185 References should be numbered consecutively in the order in which they are referenced in the
186 body of the paper. Set reference callouts with standard `\cite{}` command or set manually
187 inside square brackets [1].

188 To reference multiple articles at once, simply use a comma to separate the reference labels, e.g.
189 `\cite{Yelin:03,Masajada:13,Zhang:14}`, produces [1–3].

190 8.3. Bib_TE_X

191 Bib_TE_X may be used to create a file containing the references, whose contents (i.e., contents of
192 .bbl file) can then be pasted into the bibliography section of the .tex file. A Bib_TE_X style file,
193 `optica.jnl.bst`, is provided.

194 If your manuscript already contains a manually formatted `\begin{thebibliography}...`
195 `\end{thebibliography}` list, then delete the `latexmkrc` file (if present) from your
196 submission files.

197 9. Conclusion

198 After proofreading the manuscript, compress your .tex manuscript file and all figures (which
199 should be in EPS or PDF format) in a ZIP, TAR, or TAR-GZIP package. All files must be
200 referenced at the root level (e.g., file `figure-1.eps`, not `/myfigs/figure-1.eps`). If
201 there are supplementary materials, the associated files should not be included in your manuscript
202 archive but be uploaded separately through the Prism interface.

203 Add references with Bib_TE_X or manually [1–8].

204 **References**

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220 [6084/m9.figshare.1005064](http://dx.doi.org/10.6084/m9.figshare.1005064).