Research Article Vol. X, No. X / April 2016 / Optica

# Legacy LATEX template for preparing an article for submission to *Optica*

AUTHOR ONE  $^{1,2,3}$ , AUTHOR TWO $^{2,*}$ , AND AUTHOR THREE  $^1$ 

Compiled December 29, 2019

This legacy LATEX template can be used to prepare a research article or a short article for submission to Optica. Select \setboolean{shortarticle}{false} for a research article or \setboolean{shortarticle}{true} for a letter or memorandum. Select \setboolean{minireview}{true} to output a header identifying the paper as a Mini-Review. Authors may use this legacy template for a precise length estimate for Optica letters and memoranda. Please note that OSA is no longer using OCIS codes. © 2019 Optical Society of America under the terms of the OSA Open Access Publishing Agreement

http://dx.doi.org/10.1364/optica.XX.XXXXXX

## 1. INTRODUCTION

This legacy template is designed to assist with creating a two-column research article or letter to submit to *Optica*. See the OSA's Style Guide and Manuscript Templates pages for more details.

If you have a question while using this template on Overleaf, please use the help menu ("?") on the top bar to search for help or ask us a question using the option in the lower right of the editor.

## 2. EXAMPLES OF ARTICLE COMPONENTS

The sections below show examples of different article components. Sections should generally follow the conventional order: Introduction, Method, Results, Discussion, and Conclusion. Please do not include Methods in a separate section at the end.

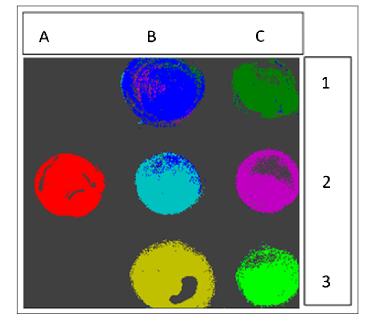
## 3. FIGURES AND TABLES

It is not necessary to place figures and tables at the back of the manuscript. Figures and tables should be sized as they are to appear in the final article. Do not include a separate list of figure captions and table titles.

Figures and Tables should be labeled and referenced in the standard way using the \label{} and \ref{} commands.

# A. Sample Figure

Figure 1 shows an example figure.



**Fig. 1.** False-color image, where each pixel is assigned to one of seven reference spectra.

<sup>&</sup>lt;sup>1</sup> Publications Department, The Optical Society, 2010 Massachusetts Avenue NW, Washington DC, 20036, USA

<sup>&</sup>lt;sup>2</sup>School of Science, University of Technology, 2000 J St. NW, Washington DC, 20036, USA

<sup>&</sup>lt;sup>3</sup> School of Optics, University of Technology, 2000 J St. NW, Washington DC, 20036, USA

<sup>\*</sup>Corresponding author: email@my-email.com

Research Article Vol. X, No. X / April 2016 / Optica 2

#### **B.** Sample Table

Table 1 shows an example table.

**Table 1. Shape Functions for Quadratic Line Elements** 

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

## 4. SAMPLE EQUATION

Let  $X_1, X_2, ..., X_n$  be a sequence of independent and identically distributed random variables with  $E[X_i] = \mu$  and  $Var[X_i] = \sigma^2 < \infty$ , and let

$$S_n = \frac{X_1 + X_2 + \dots + X_n}{n} = \frac{1}{n} \sum_{i=1}^{n} X_i$$
 (1)

denote their mean. Then as n approaches infinity, the random variables  $\sqrt{n}(S_n - \mu)$  converge in distribution to a normal  $\mathcal{N}(0, \sigma^2)$ .

## 5. SAMPLE ALGORITHM

Algorithms can be included using the commands as shown in Algorithm 1.

## Algorithm 1. Euclid's algorithm

1: <b>procedure</b> EUCLID( <i>a</i> , <i>b</i> )	⊳ The g.c.d. of a and b
2: $r \leftarrow a \bmod b$	
3: <b>while</b> $r \neq 0$ <b>do</b>	b We have the answer if r is 0
4: $a \leftarrow b$	
5: $b \leftarrow r$	
6: $r \leftarrow a \bmod b$	
7: <b>return</b> <i>b</i>	⊳ The gcd is b

## **FUNDING INFORMATION**

National Science Foundation (NSF) (1263236, 0968895, 1102301); The 863 Program (2013AA014402).

#### **ACKNOWLEDGMENTS**

Formal funding declarations should not be included in the acknowledgments but in a Funding Information section as shown above. The acknowledgments may contain information that is not related to funding:

The authors thank H. Haase, C. Wiede, and J. Gabler for technical support.

## **DISCLOSURES**

Disclosures should be listed in a separate section at the end of the manuscript. List the Disclosures codes identified on OSA's Conflict of Interest policy page. If there are no disclosures, then list "The authors declare no conflicts of interest."

Here are examples of disclosures:

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

**Disclosures.** The authors declare no conflicts of interest.

## SUPPLEMENTAL DOCUMENTS

*Optica* authors may include supplemental documents with the primary manuscript. For details, see Supplementary Materials in Optica. To reference the supplementary document, the statement "See Supplement 1 for supporting content." should appear at the bottom of the manuscript (above the references).

#### REFERENCES

For references, you may add citations manually or use BibTeX. E.g. [1].

Letter submissions to *Optica* require two sets of references: an abbreviated reference style for publication and a full reference list to aid the editor and reviewers. Citations to journal articles in the abbreviated list should omit the article title and final page number; this abbreviated reference style is produced automatically when the \setboolean{shortarticle}{true} option is selected in the template, if you are using a .bib file for your references.

The full reference list meant to aid the editor and reviewers must be included as well on an informational page that will not count against page length; again this will be produced automatically if you are using a .bib file and have the \setboolean{shortarticle}{true} option selected.

## **REFERENCES**

 Y. Zhang, S. Qiao, L. Sun, Q. W. Shi, W. Huang, L. Li, and Z. Yang, "Photoinduced active terahertz metamaterials with nanostructured vanadium dioxide film deposited by sol-gel method," Opt. Express 22, 11070–11078 (2014).