

# L<sup>A</sup>T<sub>E</sub>X Template for Preparing an Article for I524

AUTHOR ONE<sup>1,2,3</sup>, AUTHOR TWO<sup>2,\*</sup>, AND AUTHOR THREE<sup>1</sup>

<sup>1</sup>Publications Department, The Optical Society (OSA), 2010 Massachusetts Avenue NW, Washington D.C., 20036

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

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

\*Corresponding author: email@my-email.com

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## 1. INTRODUCTION

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## 2. EXAMPLES OF ARTICLE COMPONENTS

The sections below show examples of different article components.

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### A. Sample Figure

Figure 1 shows an example figure.

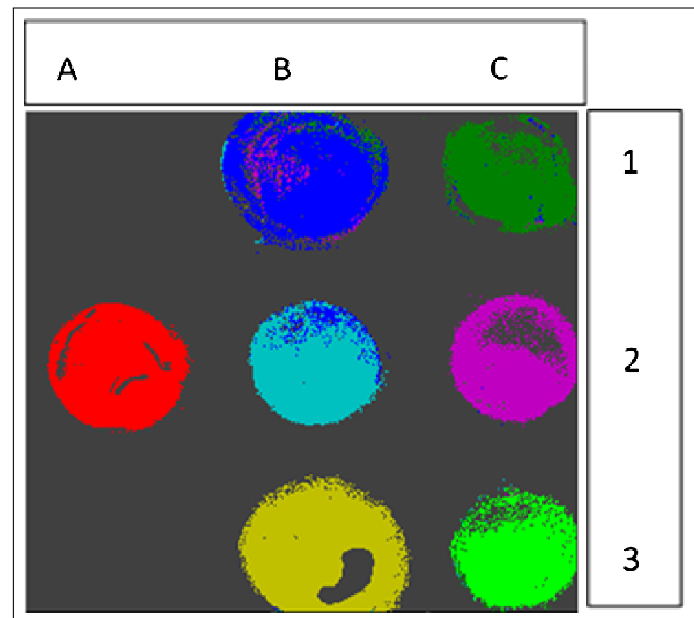
### B. Sample Table

Table 1 shows an example table.

## 4. SAMPLE EQUATION

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

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



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

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

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

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

```

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### Algorithm 2. Python example

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```

1  for i in range(0,100):
2    print i

```

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## 6. SUPPLEMENTAL MATERIAL

You can include an appendix with important information and additional figures if needed. However they must be referenced and follow the same guidelines as in the main text. All materials must be associated with a figure, table, or equation or be referenced in the results section of the manuscript. (1) 2D and 3D image files and video must be labeled "Visualization," not "Movie," "Video," "Figure," etc. (2) Machine-readable data (for example, csv files) must be labeled "Data File." Number data files and visualizations consecutively, e.g., "Visualization 1, Visualization 2..." (3) Large datasets or code files must be placed in an open, archival database. Such items should be mentioned in the text as either "Dataset" or "Code," as appropriate, and also be cited in the references list. For example, "see Dataset 1 (Ref. [1]) and Code 1 (Ref [2])." Here are examples of the references:

### A. Sample Dataset Citation

1. M. Partridge, "Spectra evolution during coating," figshare (2014) [retrieved 13 May 2015], <http://dx.doi.org/10.6084/m9.figshare.1004612>.

### B. Sample Code Citation

2. C. Rivers, "Epipy: Python tools for epidemiology" (Figshare, 2014) [retrieved 13 May 2015], <http://dx.doi.org/10.6084/m9.figshare.1005064>.

## 7. FUNDING INFORMATION

Funding information should be listed in a separate block preceding any acknowledgments. List just the funding agencies and any associated grants or project numbers, as shown in the example below:

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## 8. REFERENCES

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### REFERENCES

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