

# L<sup>A</sup>T<sub>E</sub>X template for preparing an article for submission to OSA journals *Applied Optics*, JOSA A, and JOSA B

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.

## 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.

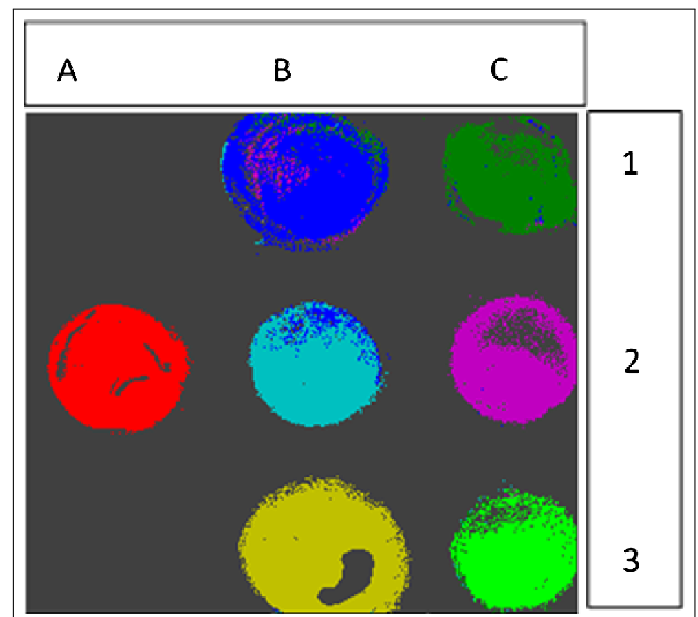
Figures and Tables should be labelled and referenced in the standard way using the `\label{}` and `\ref{}` commands.

### A. Sample Figure

Figure 1 shows an example figure.

### B. Sample Table

Table 1 shows an example table.



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

#### 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

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

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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Add citations manually or use BibTeX. See [1].

#### REFERENCES

1. 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).