# LaTeX template for preparing a research article for submission to the *Journal of Optical Communications and Networking*

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## 1. INTRODUCTION

This template is designed to assist with creating an article to submit to the *Journal of Optical Communications and Networking*. See the Style Guide and Manuscript Templates pages for more details.

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The sections below show examples of different article components.

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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.

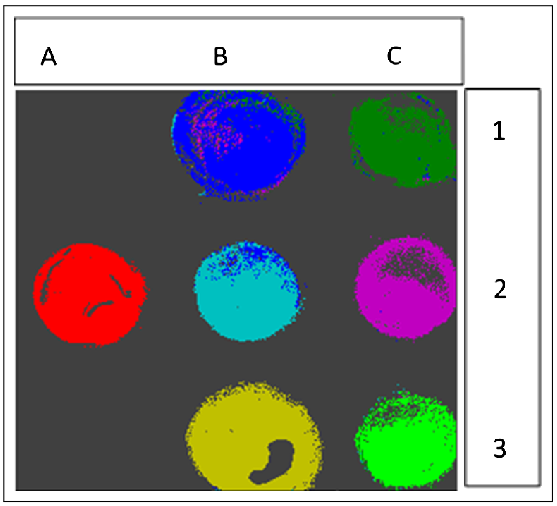


**Fig. 1.** False-color image, where each pixel is assigned to one of seven reference spectra.

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### C. Sample Table

Table 1 shows an example table.

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

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

## 5. SAMPLE EQUATION

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

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

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

## 6. 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 ← a mod b
3:     while r ≠ 0 do              ▷ We have the answer if r is 0
4:         a ← b
5:         b ← r
6:         r ← a mod b
7:     return b                    ▷ The gcd is b
```

## 7. SUPPLEMENTAL MATERIAL

Consult the Author Guidelines for Supplementary Materials in Optica's Journals for details on accepted types of materials and instructions on how to cite them. For preprints submitted to Optica Open a link to supplemental material should be included in the submission, but do not upload the material. 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.

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## FUNDING

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## ACKNOWLEDGMENTS

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## 9. REFERENCES

Full references (to aid the editor and reviewers) must be included. This will be produced automatically if you are using a .bib file.

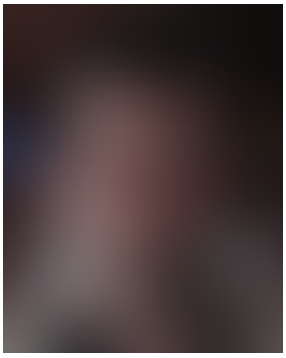
Add citations manually or use BibTeX. See [1, 2].

## REFERENCES


1. D. Chitimalla, K. Kondepu, L. Valcarenghi, M. Tornatore, and B. Mukherjee, "5g fronthaul–latency and jitter studies of cpri over ethernet," J. Opt. Commun. Netw. **9**, 172–182 (2017).
2. Y.-H. Wen, J.-W. Ho, and K.-M. Feng, "Simultaneous all-optical transparent phase multiplexing/de-multiplexing based on fwm in a hnlf," in *Optical Fiber Communication Conference*, (Optica, 2022), p. W4D.1.


## AUTHOR BIOGRAPHIES

**First A. Author** (M'76–SM'81–F'87) and the other authors may include biographies at the end of regular papers. This author became a Member (M) of IEEE in 1976, a Senior Member (SM) in 1981, and a Fellow (F) in 1987. The first paragraph may contain a place and/or date of birth (list place, then date). Next, the author's educational background is listed. The degrees should be listed with type of degree in what field, which institution, city, state, and country, and year degree was earned. The author's major field of study should be lower-cased.



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**Alice Smith** received her BSc (Mathematics) in 2000 from The University of Maryland. Her research interests also include lasers and optics.