Preparing a manuscript for the OSA journal *Advances in Optics and Photonics*

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OCIS codes: 000.0000, 999.9999.

1. General Guidelines

To assist with manuscript conversion and production, please note the following:

- Math notation should be placed in a proper LaTeX environment. For example, expression $3 \times 4 = 12$ should be set this way, `$3\times 4=12$`, not this way, `3 $\times$4=12`.

- All references should be set in OSA format. BibTeX and EndNote citation style files are available (see OSA Author Style Guide).

Instructions for identifying key terms and summary ideas, and for including media files, are given below.

2. Highlighting Key Terms and Summary Ideas

Tutorial articles in particular can benefit from highlighting of key terms and ideas.

- Key terms can simply be highlighted in bold text, e.g., **optical coherence tomography**, with the `\textbf{}` command.

- Key or summary ideas can be placed inside a "highlight" box with the `\begin{highlight}` `\end{highlight}` commands, as shown here.

Type a quote from the document or the summary of an interesting point: Since 1997, authors have been able to include short video and animation files in OSA's *Optics Express*. The ability to include video files has been extended to AOP (and to all OSA journals). To facilitate broad access and archivability, authors who wish to publish video files should follow the guidelines described in Use of Multimedia in OSA Journals

3.   Multimedia and Supplementary Data Files

3.1.   Supported File Formats

OSA encourages the enrichment of key figures, tables, and equations with associated video files, tabular data sets, and Mathematica or Matlab scripts. We offer the following options for AOP:

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3.2.   Referencing Media Files

Each media file in a manuscript must be associated with a figure or table. The figure caption (or table title) should reference each associated media item as in this example:

Media files should be numbered sequentially throughout the manuscript and will be hyperlinked in the final online version. When referencing a media file from the body of the manuscript, refer to both the figure (or table) and the media object; e.g., see Fig. 2 (Media 7).
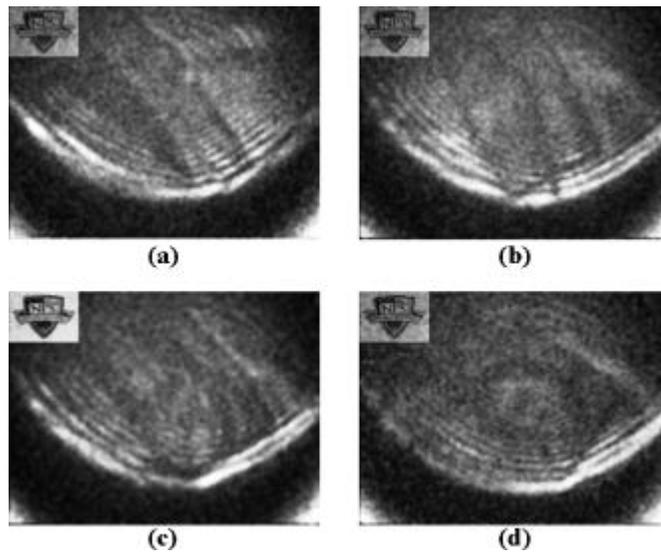
FIGURE 1. Single-frame excerpts from video recordings of metallic objects concealed by opaque plastic tape. (a) Utility blade (Media 1). (b) Dentist's pick (Media 2). (c) Paper clip (Media 3). (d) Plastic/wire tie twisted into the shape of a loop (Media 4). Sample figure adapted from Opt. Lett. **33**, 440 (2008).
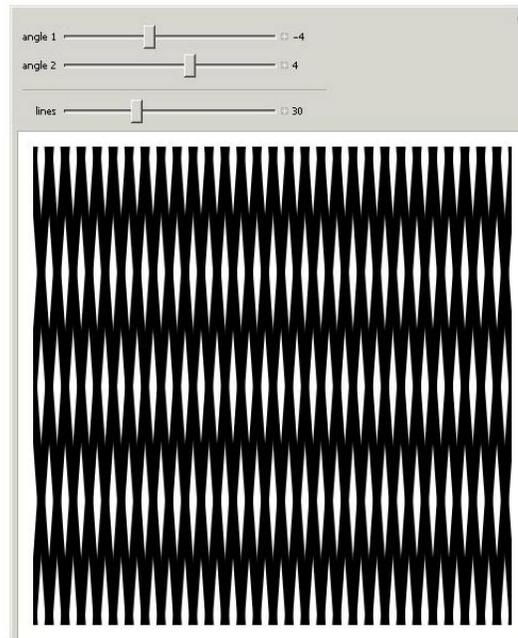
FIGURE 2. Example of a figure associated with a Mathematica demonstration project (Media 5), "Moiré Pattern of Two Straight Line Patterns," submitted by James C. Wyant. In addition, a version of the Mathematica project designed to run in the free Mathematica Player is provided (Media 6). For readers without access to Mathematica software, a QuickTime .mov video file (Media 7) was created to show the interactive options of the Mathematica script (the same approach can be applied with Matlab files).

References

1. C. van Trigt, "Visual system-response functions and estimating reflectance," J. Opt. Soc. Am. A **14**, 741–755 (1997).
2. T. Masters, *Practical Neural Network Recipes in C++* (Academic, 1993).
3. B. L. Shoop, "New devices for optoelectronics: smart pixels," in *Handbook of Fiber Optic Data Communications*, C. DeCusatis, D. Clement, E. Maass, and R. Lasky, eds. (Academic, 1997), pp. 705–706.
4. R. E. Kalman,"Algebraic aspects of the generalized inverse of a rectangular matrix," in *Proceedings of Advanced Seminar on Generalized Inverse and Applications*, M. Z. Nashed, ed. (Academic, 1976), pp. 111–122.
5. R. Craig and B. Gignac, "High-power 980-nm pump lasers," in *Optical Fiber Communication Conference*, Vol. 2 of 1996 OSA Technical Digest Series (Optical Society of America, 1996), paper ThG1.
6. D. Steup and J. Weinzierl, "Resonant THz-meshes," presented at the Fourth International Workshop on THz Electronics, Erlangen-Tennenlohe, Germany, 5–6 Sept. 1996.
7. S. K. Griebel, "Experimental performance of an ATM-based buffered hyperplane CMOSSEED smart pixel array," Proc. SPIE **3005**, 254–258 (1997).