

Article title should be less than 17 words, no acronyms

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Put your abstract here. Abstracts are limited to 200 words for regular articles and 100 words for Letters to the Editor. Please no personal pronouns, also please do not use the words “new” and/or “novel” in the abstract. An article usually includes an abstract, a concise summary of the work covered at length in the main body of the article.

[<https://doi.org/DOI number>]

[XYZ]

Pages: 1–16

I. INTRODUCTION

This sample document demonstrates the use of JASA in manuscripts prepared for submission to the Journal of the Acoustical Society of America.

See JASA-TeXGuide.pdf, which is part of this package, for extensive documentation on using commands for JASA.

You can compare the .tex version of this file with the resulting .pdf version to give you an idea of what commands are available and how they work. At the top of the .tex file you’ll find a listing of the documentclass options, and an explanation of their results. Some additional suggestions are included in the body of this manuscript.

Beginner Latex users should refer to their favorite online documentation. A useful place to start is the primer from the TeX Users Group <https://www.tug.org/twg/mactex/tutorials/ltxprimer-1.0.pdf>

The paper is organized as follows: Section II presents initial information, while Section III presents examples of mathematical expressions.

[For these sample pages we have used only figsamp.jpg for convenience]

Here is some normal text that show how the columns are formatted. Here is some normal text that show how the columns are formatted. Here is some normal text that show how the columns are formatted. Here is some normal text that show how the columns are formatted. Here is some normal text that show how the columns are formatted. Here is some normal text that show how the columns are formatted.

II. SECTION TWO

An example of another first-level Section with following example text that refers to subsections using

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FIGURE

FIG. 1. Caption here.

Note: The only figure formats allowed are the following: .pdf, .ps, .eps, or .jpg. (.tiff is not recommended for use with LaTeX)

Figure files must be named in this fashion: Figure#.xxx, where “#” is the figure number and “xxx” is the file format (Figure1.eps, Figure2.jpg, Figure3a.ps, Figure3b.ps, etc).

\ref{subsec:XXX} ... EXAMPLE: Some background in section II and details in subsection II A.

A. Sample subsection

1. Sample subsubsection

a. Sample paragraph. Here is text following the paragraph heading. Here is a figure reference: is shown in Fig. 10.

III. INLINE AND DISPLAY MATH SAMPLES

A. Tip: How to keep line numbers from disappearing above some math commands

If you use line numbering (`\documentclass[reprint,TurnOnLineNumbers]{JASA}`) occasionally line numbers will disappear in the paragraph above certain math commands, like `\begin{align}`. You can fix this by typing `\linenomath` before the math command, which will allow the numbering to continue in the paragraph before the math:

$$2x - 5y = 8 \quad (1)$$

$$3x + 9y = -12 \quad (2)$$

Another line here.

B. Math and equations $\alpha\beta\Delta\Gamma$

Inline math may be typeset using the $\$$ delimiters. (Authors: Remember to surround your math with the $\$$ delimiters. A missing dollar sign is a common cause for errors.)

Bold math symbols may be achieved using the `bm` package and the `\bm{#1}` command it supplies. For instance, a bold α can be typeset as `\bm{\alpha}` giving α . Fraktur and Blackboard (or open face or double struck) characters should be typeset using the `\mathfrak{#1}` and `\mathbb{#1}` commands respectively. Both are supplied by the `amssymb` package which is called in JASA, so no need enter `\includepackage{amssymb}`. To see `amssymb` in action: `\mathbb{R}` gives \mathbb{R} and `\mathfrak{G}` gives \mathfrak{G} .

In \LaTeX there are many different ways to display equations; a few preferred ways are noted below. Displayed math will center by default.

Below we have numbered single-line equations; this is the most common type of equation.

$$\chi_+(p)[2|\mathbf{p}|(|\mathbf{p}| + p_z)]^{-1/2} \begin{pmatrix} |\mathbf{p}| + p_z \\ px + ip_y \end{pmatrix}, \quad (3)$$

$$\left\{ 1234567890abc123\alpha\beta\gamma\delta1234556\alpha\beta\frac{1\sum_b^a}{A^2} \right\}. \quad (4)$$

Note the open one in Eq. (4).

Not all numbered equations will fit within a narrow column this way. The equation number will move down automatically if it cannot fit on the same line with a one-line equation.

$$\chi_+(p)[2|\mathbf{p}|(|\mathbf{p}| + p_z)]^{-1/2}\alpha\beta\gamma\delta123455678\alpha\beta\Gamma\Delta\frac{1\sum_b^a}{A^2}1234 \quad (5)$$

When the `\label{#1}` command is used [ie. input for Eq. (4)], the equation can be referred to in text without knowing the equation number that \TeX will assign to it. Just use `\ref{#1}`, where `#1` is the same name that used in the `\label{#1}` command.

Unnumbered single-line equations can be typeset using the `\[, \]` format:

$$g^+g^+ \rightarrow g^+g^+g^+g^+ \dots, \quad q^+q^+ \rightarrow q^+g^+g^+ \dots$$

Equations can be lettered with the subequations environment:

$$A = mc, \quad (6a)$$

$$B = mc^2, \quad (6b)$$

$$C \gtrsim mc^3. \quad (6c)$$

Referenced: Eqs. (6a), (6b), and (6c).

IV. FLOATS, FIGURES AND TABLES

Figures and tables are typically “floats” which means that their final position is determined by \LaTeX while the document is being typeset. \LaTeX isn’t always successful in placing floats optimally. Use the `figure*` environment to get a wide figure that spans the page in a two-column layout.

A. Tables using `\ruledtabular`

Tables generally should be surrounded with `\begin{ruledtabular}...\end{ruledtabular}`. This will guarantee that they are the width of the page or column, and have two ruled lines at the top and bottom of the table.

[ht] in the code below instructs \LaTeX to place the table where it appears in type, if it will fit on the page; otherwise put it on the top of the next page.

1. Table notes

Footnotes in a table are labeled a, b, c, etc. They can be specified by using the \LaTeX `\footnotemark[]` and `\footnotetext[]` commands. The footnotes for a table are typeset at the bottom of the table, rather than at the bottom of the page or at the end of the references. The arguments for `\footnotemark[]` and `\footnotetext[]` should be numbers 1, 2, ... The journal style will convert these to letters.

This system allows multiple entries to refer to the same footnote.

B. Plain Tables: When NOT to use ‘ruledtabular’

There are a number of cases when ‘ruledtabular’ should not be used: basically for any table using complex content or commands.

1. Using `\multicolumn`

When you’d like to use the `\multicolumn` command in your table, you’ll find that ‘ruledtabular’ will cause bad formatting. In that case, Don’t Use Ruledtabular, and instead put in `\hline\hline` at the top and bottom of the table.

TABLE I. A table using `\ruledtabular`. Note that several entries share the same footnote. Inspect the L^AT_EX input for this table to see exactly how it is done.

	r_c (Å) ^a	r_0 (Å)	κr_0		r_c (Å)	r_0 (Å)	κr_0
Cu	0.800	14.10	2.550	Sn ^a	0.680	1.870	3.700
Ag	0.990	15.90	2.710	Pb ^b	0.450	1.930	3.760
Au	1.150	15.90	2.710	Ca ^c	0.750	2.170	3.560

^a Here's the first.
^b Here's the second.
^c Here's the third.

TABLE II. A table made without 'ruledtabular' needs to have two hlines added to the top and bottom of the table.

	r_c (Å) ^a	r_0 (Å)	κr_0		r_c (Å)	r_0 (Å)	κr_0
Cu	0.800	14.10	2.550	Sn ^a	0.680	1.870	3.700
Ag	0.990	15.90	2.710	Pb ^b	0.450	1.930	3.760
Au	1.150	15.90	2.710	Ca ^c	0.750	2.170	3.560

^a This is the first table note.
^b This is the second table note.
^c This is the third table note.

2. Using the `\adjustbox{} (tabular)` `\end{adjustbox} command`

There may be times when the table is too wide, or you want to have the table be the width of the page, whether or not it appears in preprint or reprint version of JASA. In this case you can use `\begin{adjustbox}{<width>}`
`(tabular) \end{adjustbox}`.
('adjustbox' will NOT work with 'ruledtabular')
You can set a maximum width with
`\begin{adjustbox}{max width=\textwidth}(tabular)`
`\end{adjustbox}`

TABLE III. Sample using `\adjustbox`. Top 5 rated $\widehat{\text{ITD}}$ estimation methods according to the sum and product metric criteria for ± 0.5 JND and ± 1 JND tolerance thresholds (normalized scores).

Rank #	sum criteria [± 0.5 JND]	sum criteria [± 1 JND]	product criteria [± 0.5 JND]	product criteria [± 1 JND]
1	Threshold -30dB lp (0.43)	Threshold -30dB lp (0.71)	Threshold -30dB lp (1.00)	Threshold -30dB lp (1.00)
2	MaxIACCe lp (0.39)	Threshold -20dB lp (0.66)	MaxIACCe lp (0.39)	Threshold -20dB lp (0.57)
3	Threshold -20dB lp (0.38)	CenIACCr bb (0.62)	CenIACCr lp (0.33)	CenIACCr bb (0.37)
4	CenIACCr lp (0.37)	MaxIACCe lp (0.61)	Threshold -20dB lp (0.29)	MaxIACCe lp (0.34)
5	Cen- e^2 lp (0.34)	CenIACCe lp (0.61)	Cen- e^2 lp (0.10)	CenIACCr lp (0.33)

in which case the table in the reprint version might be less than the full text width;

Or you can set the exact width you'd like with
`\begin{adjustbox}{width=\textwidth}(tabular)`
`\end{adjustbox}`
in which case the table will be the full width of the page in either preprint or reprint.

This way you can make a table that will fit in the correct width whether you are using the preprint or reprint option.

C. Using dcolumn

`\usepackage{dcolumn}` is included in JASA.cls so you don't need to add it explicitly. <http://anorien.csc.warwick.ac.uk/mirrors/CTAN/macros/latex/required/tools/dcolumn.pdf> will give you detailed information. A gentler introduction may be found in this informative and well illustrated article: <https://www.tug.org/pracjourn/2007-1/mori/mori.pdf>, starting on page 20. (You may want to look at more examples in this quite comprehensive article on making tables in L^AT_EX.)

"If we do not want to break the fractional and the integral part in two columns, the dcolumn package provides a new type of column
`D{sep -in}{sep -out}{ before.after}`
The first argument `{sep-in}` is the symbol used in the .tex document to separate the integral and the fractional part (usually the decimal point . or the decimal comma ,), the second argument `{sep-out}` is the symbol that we want in the output, the third is the number of digits on the left (before) and on the right (after) this symbol. The numbers are aligned to the decimal point and, in case that the third argument is negative, the decimal point is aligned to the center of the column. If the columns have a heading, it must be inserted into the command
`\multicolumn{1}{c}{...}`

An example using dcolumn:

```
{\hsize= 2in
\begin{ruledtabular}
\begin{tabular}{cD {,}{.}{5.4}}
Expression      & \multicolumn {1}{c}{ Value }\\
\hline
$\pi$           & 3,1416                & \\
$\pi^{\pi}$     & 36,46                 & \\
$\pi^{\pi^{\pi}}$ & 80662,7              & \\
\end{tabular}
\end{ruledtabular}
}
```

Expression	Value
π	3.1416
π^{π}	36.46
$\pi^{\pi^{\pi}}$	80662.7

V. ROTATED TABLE

On the next page you will see a rotated table. The commands to rotate your table are `\begin{rotatetable}...``\end{rotatetable}`. You will not need to use `\begin{table}...``\end{table}` within these commands.

```
\begin{rotatetable}
\caption{This is an example of sideways table which will
allow a wide table to fit on the page even if it is wider than the
normal text. We can see where this caption wraps when it is a wide
caption.
}
\begin{tabular}{llllllll}
\hline\hline
& $\pi$ (\AA) & $\pi^{\pi}$ (\AA) & $\pi^{\pi^{\pi}}$ (\AA) & $\pi$ (\AA) & $\pi^{\pi}$ (\AA) & $\pi^{\pi^{\pi}}$ (\AA) & \\
\hline
Cu & 0.800 & 14.10 & 2.550 & Sn & \footnotemark[1] & & \\
& 0.680 & 1.870 & 3.700 & & & & \\
Ag & 0.990 & 15.90 & 2.710 & Pb & \footnotemark[2] & & \\
& 0.450 & 1.930 & 3.760 & & & & \\
Au & 1.150 & 15.90 & 2.710 & Ca & \footnotemark[3] & & \\
& 0.750 & 2.170 & 3.560 & & & & \\
\hline\hline
Some expressions & make a table & Too wide to fit & in a normal page
width & So we rotate This Table. & We now have the &
height of the page to use & for the table. \\
\end{tabular}
\footnotetext[1]{This is the first table note.}
\footnotetext[2]{This is the second table note.}
\footnotetext[3]{This is the second table note.}
\end{rotatetable}
```

TABLE. IV. This is an example of sideways table which will allow a wide table to fit on the page even if it is wider than the normal text. We can see where this caption wraps when it is a wide caption.

	r_c (Å) ^a	r_0 (Å)	κr_0		r_c (Å)	r_0 (Å)	κr_0
Cu	0.800	14.10	2.550	Sn ^a	0.680	1.870	3.700
Ag	0.990	15.90	2.710	Pb ^b	0.450	1.930	3.760
Au	1.150	15.90	2.710	Ca ^c	0.750	2.170	3.560

Some expressions make a table Too wide to fit in a normal page width So we rotate This Table. We now have the height of the page to use for the table.

^aThis is the first table note.

^bThis is the second table note.

^cThis is the second table note.

VI. USING LONGTABLE FOR A TABLE THAT CONTINUES OVER COLUMNS OR PAGES

`\usepackage{longtable}` is included in the JASA.cls, giving you access to the commands if you want to make a table that continues over pages. When using longtable, you must remember to run pdf_latex on your article several times to get correct table formatting.

Here is the syntax for longtable:

```
\begin{center} %% Optionally center table with \begin{center} ... \end{center}
\begin{longtable}{<table preamble>}
\caption{} %% optional caption
%% Everything between here and \endfirsthead will be used for
%% column headers for the first page of the table. Use two \hline's here and
%% at the bottom of the table.
\hline\hline \multicolumn{1}{|c|}{\textbf{First column}} &
\multicolumn{1}{|c|}{\textbf{Second column}} &
\multicolumn{1}{|c|}{\textbf{Third column}} \\ \hline
\endfirsthead
%% Everything between here and \endhead will be used for
%% column headers for the all the following pages of the table.
\multicolumn{3}{c}%
{\bfseries \tablename\ \thetable{} -- continued from previous page}} \\
\hline \multicolumn{1}{|c|}{\textbf{First column}} &
\multicolumn{1}{|c|}{\textbf{Second column}} &
\multicolumn{1}{|c|}{\textbf{Third column}} \\ \hline
\endhead
%% Everything between here and \endfoot will be used for footers on every
%% page of the table except for the final one:
\hline \multicolumn{3}{|r|}{{Continued on next page}} \\ \hline
\endfoot
%% Everything between here and \endlastfoot will be used for
%% bottom of the table on its final page:
\hline \hline
\endlastfoot
%% Enter contents of the table here:
Table Text
%% Then end table with
\end{longtable}
\end{center}
```

An example Long Table:

TABLE V: A sample long table.

[illegible]

(Continued)

TABLE V – *Continued*

<i>First</i>	<i>Second</i>	<i>Third</i>
And	So	On
And	So	On
And	So	On

A. A long table with rotated column heads

This example shows how to rotate column heads in a long table environment. You may want to try these commands on another table where the column headers are too wide to fit gracefully in the column or page.

To rotate the column header use the command `\rothead{<column head>}`.

In this example, the code for the rotated columns heads looks like this:

```
\rothead{Bin Interval\\ Lower Bound} &
\rothead{Bin Interval\\ Upper Bound} &
\rothead{Histogram\\ Count} &
\rothead{Expected\\ Count} &
\rothead{Cumulative\\ Distribution} &
\rothead{$\chi^2$-Value} \\
```

TABLE VI: Longtable sample, table that continues over pages, and in this case, rotates column heads.

Bin Interval Lower Bound	Bin Interval Upper Bound	Histogram Count	Expected Count	Cumulative Distribution	χ^2 - Value
1000	1003,99	102	100	102	0,04
1004	1007,99	105	100	207	0,25
1008	1011,99	104	100	311	0,16
1012	1015,99	104	100	415	0,16
1000	1003,99	102	100	102	0,04
1004	1007,99	105	100	207	0,25
1008	1011,99	104	100	311	0,16
1012	1015,99	104	100	415	0,16
1000	1003,99	102	100	102	0,04
1004	1007,99	105	100	207	0,25
1008	1011,99	104	100	311	0,16
1012	1015,99	104	100	415	0,16
1000	1003,99	102	100	102	0,04
1004	1007,99	105	100	207	0,25

B. Sample Figures, new commands available in this style

Note that the publisher determines the final layout, so your choice of figure alignment may not be reflected in the published article.

`\figline{}` will center one or more figures on one line.

`\fig{<name of file>}{<width>}{<letter to put underneath>}`

If you **do not want to use a lettered label** you should use facing curly brackets for the third argument of `\fig`:

`\figline{\fig{<name of file>}{<width>}{}}`

`\leftfig{<name of file>}{<width>}{<letter to put underneath>}`

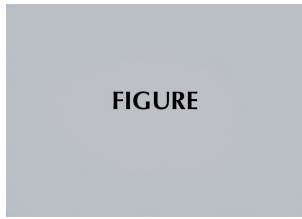
`\rightfig{<name of file>}{<width>}{<letter to put underneath>}`

`\boxedfig{<name of file>}{<width>}{<letter to put underneath>}`

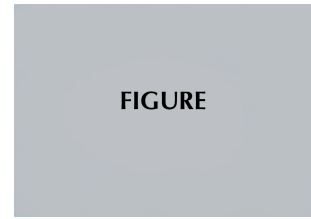
`\rotatefig{<degrees of rotation>}{<name of file>}{<width>}`
`{<letter to put underneath>}`

The following illustrations show these commands in use.

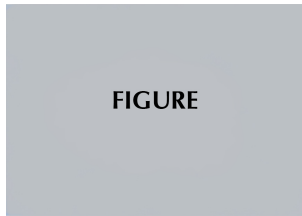
```
\figline{\fig{figsamp}{4cm}{(a)}}
\fig{figsamp}{4cm}{(b)}
\figline{\fig{figsamp}{4cm}{(c)}}
\fig{figsamp}{4cm}{(d)}
\figline{\fig{figsamp}{4cm}{(e)}}
```



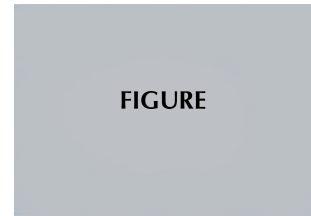
(a)



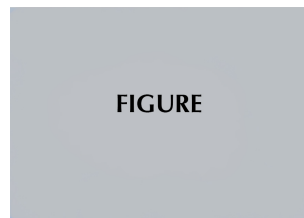
(b)



(c)



(d)



(e)

FIG. 2. Multiple images on one figure example (a) image 1, (b-f) ($\rho=1000 \text{ kg/m}^3$) and speed of sound ($c=1500 \text{ m/s}$).


```

\figline{\boxedfig{figsamp}{2in}{(a)}}
\figline{\leftfig{figsamp}{2in}{(b)}\rightfig{figsamp}{2in}{(c)}}
\figline{\rotatefig{90}{figsamp}{2in}{(d)}\rotatefig{180}{figsamp}{2in}{(e)}}

```

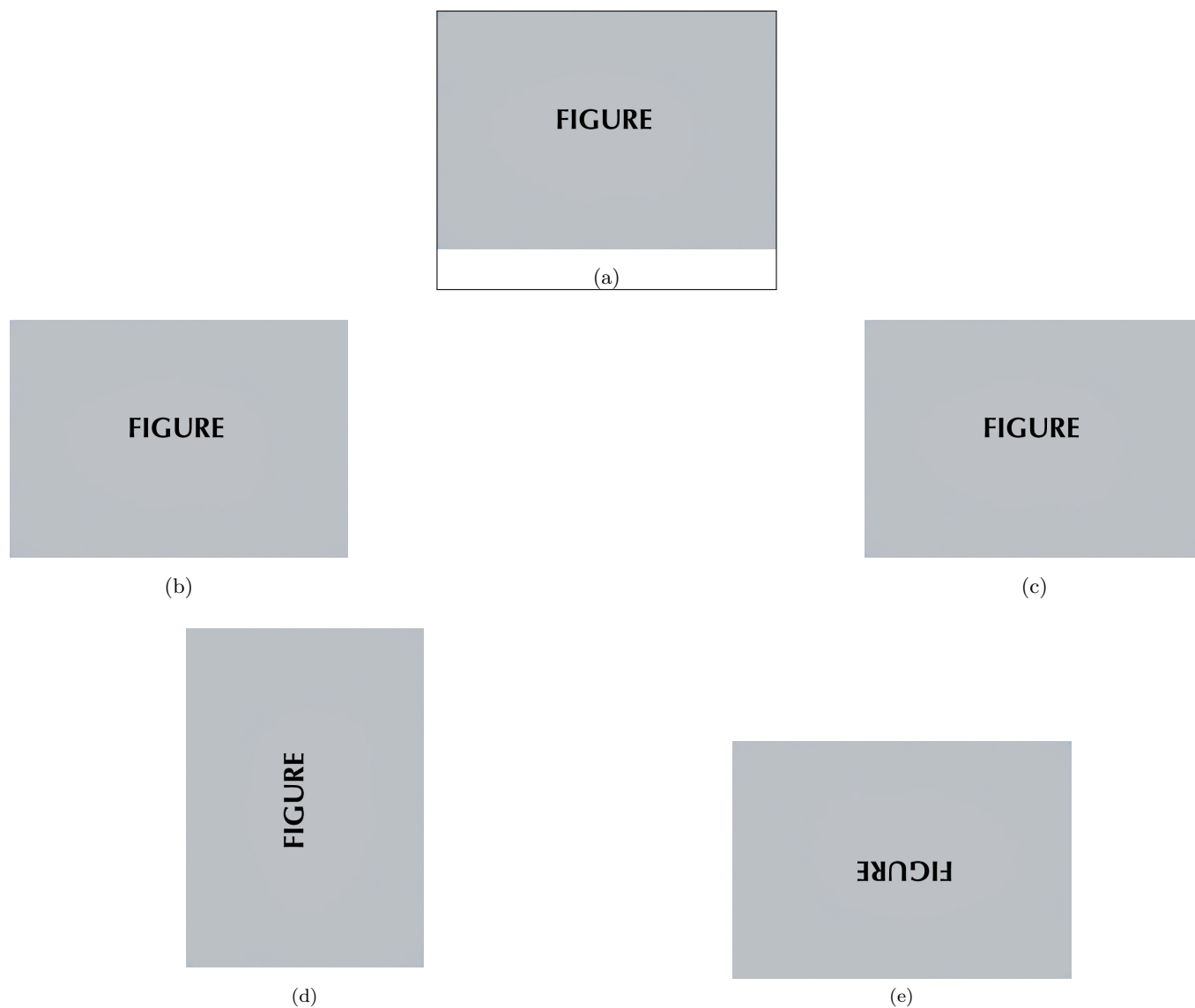


FIG. 3. More figure examples: (a) boxedfig, (b)leftfig; (c)right fig; (d) rotatefig 90 degrees; (e) rotatefig 180 degrees.

VII. LABELS IN FIGLINE

We can label and reference separate parts of the figure when using figline. The reference will give the illustration letter as well as the figure number.

To label figures used in `\figline{}` type in your label immediately after the `\fig{ }{ }` command, inside the argument to figline.

```
\figline{\fig{<name of file>}{<width>}{<letter to put underneath>}\label{<labelname>}}
```

The same placement should be used for all the kinds of fig environments used in `\figline{}`:

```
\fig{ }{ }\label{ }, \leftfig{ }{ }\label{ }, \rightfig{ }{ }\label{ },  
\boxedfig{ }{ }\label{ }, \rotatefig{ }{ }\label{ }
```

```
\figline{\boxedfig{figsamp}{1in}{(a)}\label{boxedfigLetter}}  
\figline{\leftfig{figsamp}{1in}{(b)}}  
\figline{\rightfig{figsamp}{1in}{(c)}\label{rightfigLetter}}  
\figline{\rotatefig{90}{figsamp}{1in}{(d)}}  
\figline{\rotatefig{180}{figsamp}{1in}{(e)}\label{rotatefigLetter}}
```

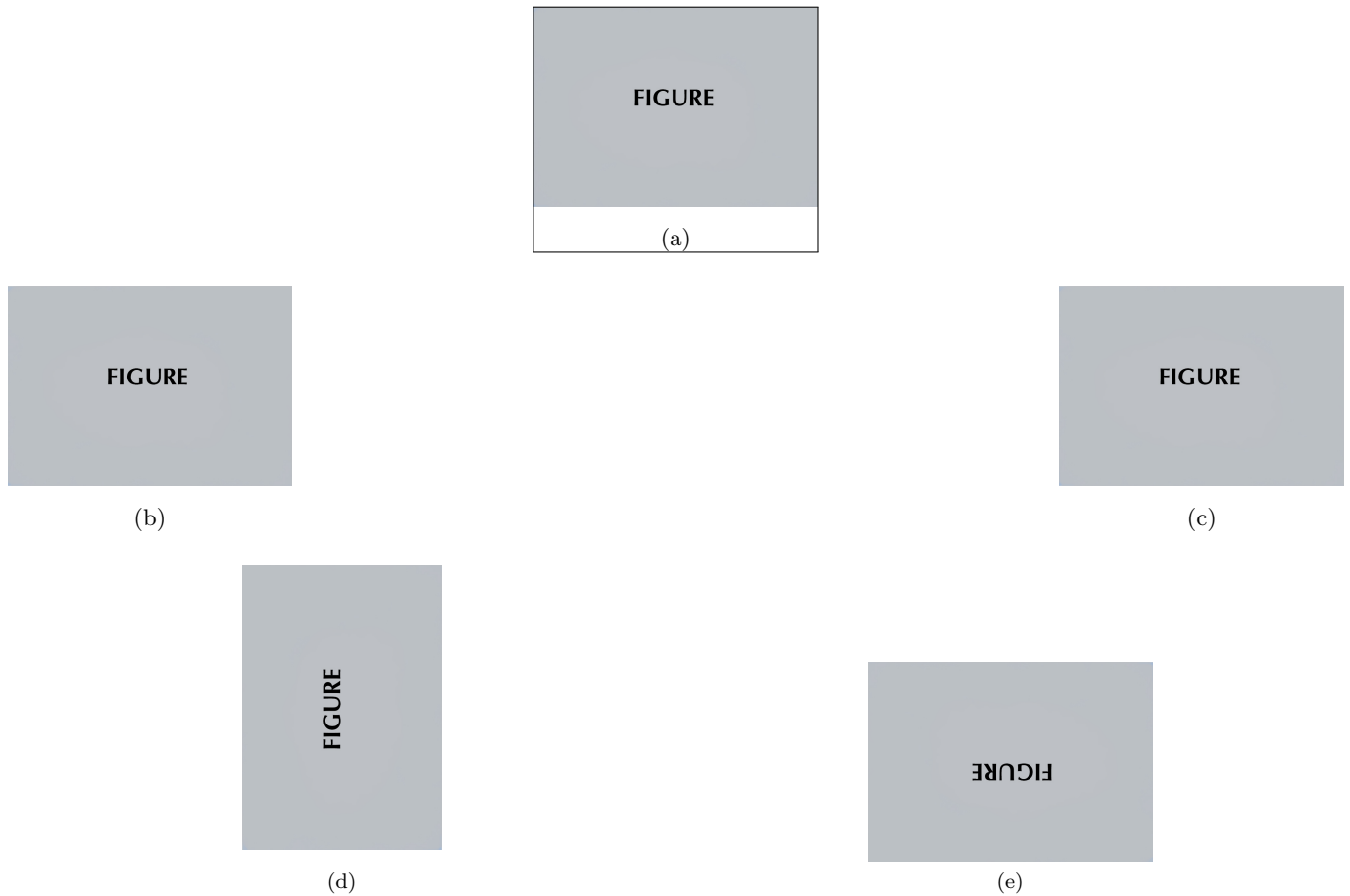


FIG. 4. More figure examples, showing how to enter `\label{}` command.

References: `\ref{boxedfigLetter}`, `\ref{rightfigLetter}`, `\ref{rotatefigLetter}`
which produces
References: 4(a), 4(c), 4(e)

```
\sidebysidefigures{figsamp}{Describing the first
illustration.}/{figsamp}{Describing the second illustration.}
```



FIG. 5. Describing the first illustration.



FIG. 6. Describing the second illustration.

```
\figline{\fig{figsamp}{.2\textwidth}{(A)}}
\fig{figsamp}{.2\textwidth}{(B)}
\fig{figsamp}{.2\textwidth}{(C)}}
\caption{Caption for three illustrations.
The caption may produce many lines, but only one paragraph.
}
```



(A)



(B)



(C)

FIG. 7. Caption for three illustrations. The caption may produce many lines, but only one paragraph. The caption may produce many lines, but only one paragraph.

```

\figline{\hfill\fig{figsamp}{.2\textwidth}{(a)}}
\fig{figsamp}{.2\textwidth}{(b)}\hfill}
\figline{\hfill\fig{figsamp}{.2\textwidth}{(c)}}
\fig{figsamp}{.2\textwidth}{(d)}\label{test}\hfill}
\caption{Here is a caption.
You cannot have more than one paragraph of text in a caption.
You cannot have more than one paragraph of text in a caption.
You cannot have more than one paragraph of text in a caption.
You cannot have more than one paragraph of text in a caption.
}

```

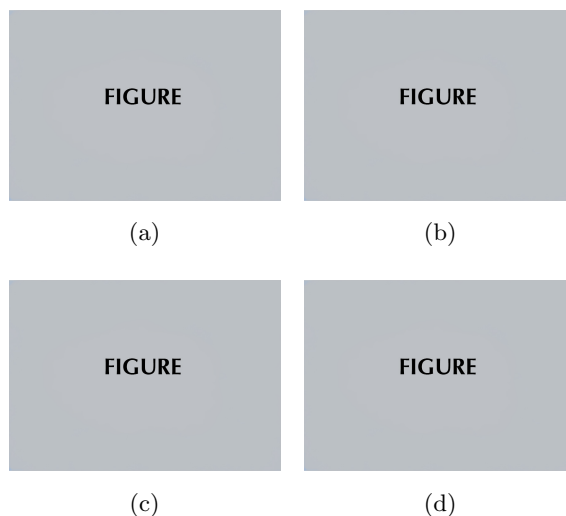


FIG. 8. Here is a caption. You cannot have more than one paragraph of text in a caption. You cannot have more than one paragraph of text in a caption. You cannot have more than one paragraph of text in a caption. You cannot have more than one paragraph of text in a caption.

```

\figcolumn{
\fig{figsamp}{.2\textwidth}{(A)}
\fig{figsamp}{.2\textwidth}{(B)}
\fig{figsamp}{.2\textwidth}{(C)}
}

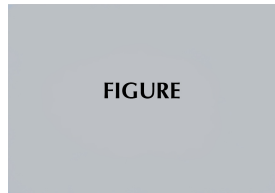
```



(A)



(B)



(C)

FIG. 9. Here are some stacking figures in a single column. The `\figcolumn{}` command works equally well in single or double column figures.

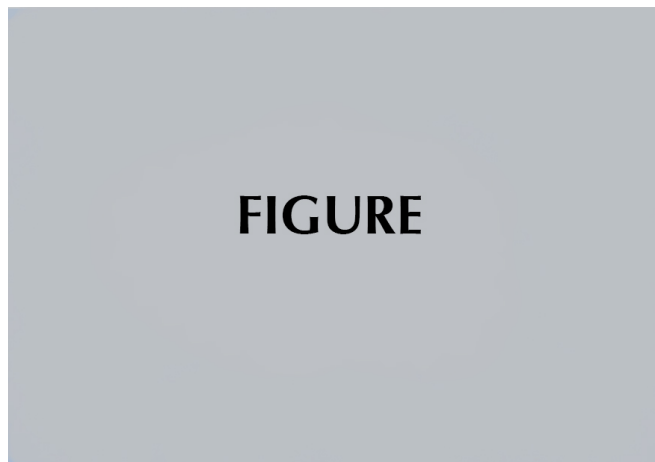


FIG. 10. Here is a sample of a long caption that will continue over columns or pages because it is used in `\begin{nofloatfigure}...\end{nofloatfigure}`. We want

to test a very long caption, so here it is. We want to test a very long caption, so here it is. We want to test a very long caption, so here it is. We want to test a very long caption, so here it is. We want to test a very long caption, so here it is. We want to test a very long caption, so here it is. We want to test a very long caption, so here it is. We want to test a very long caption, so here it is. We want to test a very long caption, so here it is.

VIII. ALGORITHM EXAMPLE

JASA.cls includes
`\usepackage{algorithm2e}`,
`\usepackage{algorithmic}`, and
`\usepackage{algorithms}`.

Below is an example of
`\begin{algorithmic}...\end{algorithmic}`
used within

`\begin{algorithm}...\end{algorithm}`.

Note that the commands that are printed in bold are all entered with all caps.

ALGORITHM 1: Sample code is shown using the algorithmic commands without numbering.

```

if  $i \geq \text{maxval}$  then
   $i \leftarrow 0$ 
else
  if  $i + k \leq \text{maxval}$  then
     $i \leftarrow i + k$ 
  end if
end if

```

ALGORITHM 2: Sample code is shown using the algorithmic commands *with* numbering, by following algorithmic with [1], ie, `(\begin{algorithmic}[1])`.

```

1: if  $i \geq \text{maxval}$  then
2:    $i \leftarrow 0$ 
3: else
4:   if  $i + k \leq \text{maxval}$  then
5:      $i \leftarrow i + k$ 
6:   end if
7: end if

```

Documentation for the algorithm2e commands:
<http://tug.ctan.org/macros/latex/contrib/algorithm2e/doc/algorithm2e.pdf>

Documentation for the algorithmicx commands:
<http://tug.ctan.org/macros/latex/contrib/algorithmicx/algorithmicx.pdf>

A description of options for the algorithm bundle found here:

<http://ctan.math.utah.edu/ctan/tex-archive/macros/latex/contrib/algorithms/algorithms.pdf>

A. Example of multimedia entry

Please note that this is for multimedia intended to appear inline within the published article.

Here is what a multimedia entry will look like:

Mm. 1. Corresponding pulse-compressed echo envelopes and video recordings from a fluttering luna moth. Echoes from the wings and body of the moth generally dominate the acoustic returns, which vary greatly over consecutive ensonifications across the wingbeat cycle. File of type “mp4” (15.3 MB)

Here we try cross referencing the multimedia entry: The multimedia above is Mm. 1.

B. Supplementary Material

ASA prefers that authors to submit related/relevant article files as supplementary material with their submission.

C. Supplementary material for publication

Any archival supplemental materials to be published with the manuscript (eg., supplementary figures) should be cited in-text and a footnote provided.

An example of reference to supplementary material:

The sound files and videos for this and other figures are included as supplementary materials¹.

The contents of the footnote above will appear at the beginning of the bibliography made with BibTeX when the default ‘author-year’ documentclass option is used; BibTeX output will have the footnote interleaved with other references if the NumberedRefs documentclass option is used.

D. File naming conventions

Here are the conventions for naming files:

- Supplementary Figure or Supplementary Figure or Text files should be named: SuppPub#.xxx, where “#” is a number and “xxx” is the file format extension (SuppPub1.docx, SuppPub2.jpg, etc)
- Supplementary Multimedia files: Supp-Pubmm#.xxx, where “#” is a number and “xxx” is the file format extension (SuppPubmm1.mp3, SuppPubmm2.gif, etc)
- Multimedia files must be named accordingly: MM#.xxx, where “#” is the number and “xxx” is the file format extension (MM1.wav, MM2.avi, etc).
- The only figure formats allowed are the following: .pdf, .ps, .eps, or .jpg. Figure files must be named in this fashion: Figure#.xxx, where “#” is the figure number and “xxx” is the file for-

mat (Figure1.eps, Figure2.jpg, Figure3a.ps, Figure3b.ps, etc).

IX. CONCLUSION

And in conclusion...

ACKNOWLEDGMENTS

This research was supported by ...

X. APPENDICES

To start the appendix, use the `\appendix` command. This signals that all following section commands will produce appendixes instead of regular sections.

Therefore, the `\appendix` command should be used only once—to set up the section commands to act as appendixes. Subsection and subsubsections are not changed from normal subsection and subsubsection commands.

Making Multiple Appendixes

Every `\section` command after `\appendix` will produce a new appendix with a new appendix letter:

APPENDIX A: ONE OF MULTIPLE APPENDICES

1. Here is subsection

a. Here is subsubsection

APPENDIX B: ANOTHER APPENDIX

Notice that the equation will use the letter for the current appendix:

$$t = -\frac{1}{\bar{\chi}_\beta} \frac{\sin^2 \phi}{\cos \theta} + t_h \quad (\text{B1})$$

Appendix without a title

To make an appendix without a title, after `\appendix` use `\section{}`. For example,

```
\appendix
\section{}
```

will produce:

APPENDIX A

1. A subsection in an appendix

Note the equation numbers in this appendix, produced with the subequations environment:

$$E = mc, \quad (\text{A1a})$$

$$E = mc^2, \quad (\text{A1b})$$

$$E \gtrsim mc^3. \quad (\text{A1c})$$

a. A subsubsection in an appendix

References for subequations: they turn out to be Eqs. (A1a), (A1b), and (A1c).

2. Labels should go AFTER appendix title

This will work:

```
\section{Testing}
\label{app:testing}
```

This will not:

```
\section{Testing\label{app:testing}}
```

Only one appendix? use \appendix*

If there is only one appendix, then the letter “A” should not appear. This is suppressed by using the star version of the appendix command (`\appendix*` in the place of `\appendix`).

Since this is a single appendix, the `\first \section{}` command after `\appendix*` will make an appendix heading. However, after the first section, `\section` will not produce the word ‘Appendix’, but will be a plain section head.

Here are examples of single appendices that are not lettered.

Single appendix with title

APPENDIX: SINGLE APPENDIX

1. Here is subsection

a. Here is subsubsection

All of the equations in the single appendix will use the letter ‘A’:

$$t = -\frac{1}{\chi_\beta} \frac{\sin^2 \phi}{\cos \theta} + t_h \quad (\text{A1})$$

APPENDIX

1. Here is the topic of this appendix

Sample appendix figure and table

Figure and table numbering are continuous through the article, and handled the same as they are in the rest of the article.



FIG. 11. Figure in an appendix.

TABLE VII. Here is the caption for a table in an appendix.

one	two	three	four
C	D	E	F

Footnotes

The contents of the footnotes will appear at the beginning of the bibliography when BibTeX produces the .bbl file using the default AuthorYear style; interleaved with other references if NumberedRefs option:

```
\documentclass[preprint,NumberedRefs]{JASA}
and BibTeX has been used.
```

This example show where this cite (Hollman, 1997) will appear in the bibliography, depending on whether we use default author-year style or call for the NumberedRefs documentclass option.

This example shows what happens when there are two references to the same author and year, Shera (2001a) and Shera (2001b).

Here are some sample footnotes:^{2,3}

Making the Bibliography Using BibTeX

Authors are highly recommended to use BibTeX to produce their bibliographies. The results will be predictable and even if it might take some time to get comfortable with using BibTeX, in the long run it will save you endless aggravation.

A resource for making your bibliography entries correctly is included in this package: `ReferenceStyles.pdf`. You will also find the files `bibsamp1.tex/.pdf` and `bibsamp2.tex/.pdf` for examples of output; and `sampbib.bib` for an example of how to make your `.bib` database entries.

There are two possible bibliography styles: the default, author-year, and the optional style, NumberedRefs, which you would call using

```
\documentclass[reprint,NumberedRefs]{JASA}
```

`\citep{}` should normally be used rather than `\cite{}`.

You can also use `\citet{}` if it is more grammatically correct to have only the year in parens (note: this is used with author-year style references).

```
\citep{bibitemName} = (bibitemName, year)
or
\citet{bibitemName} = bibitemName (year)
```

Note that the citations are hyperlinked to their entries in the bibliography:

Normal journal cite: (Christian *et al.*, 1984), Book reference Hollman (1997), Computer language documentation: (DISPERSE, 2001).

Every `\citep` or `\citet` will produce a citation and an entry in the bibliography. Every citation must have a matching entry in the bibliography database file (`filename.bib`).

Make your bibliography by doing: `pdflatex filename`, `bibtex filename`, `pdflatex filename`, `pdflatex filename`.

When uploading your files to Editorial Manager, include both the `.bib` and the appropriate `.bst` file (for

author/year reference style: `jasaauthoryear2.bst`; for numerical style: `jasanum2.bst`). Both the `.bib` and `.bst` should be uploaded as the “Manuscript (TeX or Word only)” item type.

Compare the results you get with

```
\documentclass[reprint]{JASA}
```

vs.

```
\documentclass[reprint,NumberedRefs]{JASA}
```

¹See Supplementary materials at [URL will be inserted by AIP] for [give a brief description of the material].

²Here is the second footnote. It will appear before the beginning of the bibliography in Author-Year style (default) or it will be interleaved with other references when using the NumberedRefs option.

³Here is a third footnote.

Christian, R. S., Davies, R. E., Tubis, A. B., and Anderson, C. A. (1984). “Effects of air loading on tympani membrane vibrations,” *J. Acoust. Soc. Am.* **76**, 1336–1345.

DISPERSE (2001). “A system for generating dispersion curves,” User’s Manual Version 2.0.16d, doi: [mu10.1177/1045389X16667559](https://doi.org/10.1177/1045389X16667559).

Hollman, J. P. (1997). *Heat Transfer*, 8th ed. (McGraw-Hill, New York), p. 55.

Shera, C. A. (2001a). “Frequency glides in click responses of the basilar membrane and auditory nerve: Their scaling behavior and origin in traveling-wave dispersion,” *The Journal of the Acoustical Society of America* **109**(5), 2023–2034.

Shera, C. A. (2001b). “Intensity-invariance of fine time structure in basilar-membrane click responses: Implications for cochlear mechanics,” *The Journal of the Acoustical Society of America* **110**(1), 332–348.