Contents

Based on AIP Style Guide (4th Edition)

1   General Guidance

Tables, Figures and Captions (see Sec. 4 for formatting properly in LaTeX).

In Eq. (13), (14), and (16)

In Fig. 4(a)

In Ref. 5

Dates and numbers

02 February 2016 (no commas)

four or fewer numbers closed up:

1200

24.0032 cm

Five or more digits, spaces instead of commas:

12 000

24.077 89 cm

one throgh ten

11,12 and above

2x2 matrix (numerals)

0.03 and 106.0 (no "naked" decimal points

6 V (number before units are always numerals)

1D, 2D, 3D

Punctuation

en-dash: Paris–London train, (1950–), University of Wisconsin–Madison

serial commas (a, b, and c)

hyphenate multi-word modifiers: macro-time

parenthesis:

inserted into another sentence, no period (such as this).

isolated, period inside. (Such as this.)

pairs surrounded letters in innumerated list (a) and (b)

possessives: Smith and Green's theory

plurals:

1950s

x's, K's

quotation marks after commas and periods, before colons and semi-colons

in general, place "e.g." and "i.e." in parenthesis, not commas and include a comma after (e.g., like this).

Abbreviations

Plural add 's: LCAO's

2   Specific words and terms

A

   α particle

   ad hoc

   à la

   anti-compounds closed (antilogarithm)

B

   burnup (n)

C

   Cartesian

   collision-flux estimator

   cross-section (n)

   cross term

D

   delta-tracking

   Doppler

   downscatter

E

   eigenfunction

   eigenvalue

F

   Fourier transform/analysis/spectra

G

   Gauss-Seidel (adj)

H

   half-compound hyphenated:

      half-life

   halfway

I

   indexes (to book)

   indices (to variable)

   in situ

J

K

L

   Laplacian

   l.h.s.

   lifetime

M

   Maxwell(ian)

   midpoint

   modeling

   multigroup

   multivarient

N

   non-compound closed:

      nonelastic

      nonradioactive

      but proper noun, symbol, numeral:

      non-Fermi

      12-fold

O

P

   path length

Q

R

   radioactive

   ray tracing

   r.h.s.

   runtime

S

   setup

   self-compound hyphenated:

      self-shielded (adj)

   semiempirical

   semi-infinite

T

    track length

    track-length estimator

U

    upscatter

    uranium

V

W

    waveheight

    wavelength

X

    x ray (n)

    x-ray (adj)

Y

Z

3   Math and notation

Cross-sections

macroscopic: $\tilde{\sigma}$

microscopic: σ

Matrices

Bold capital letters, $\mathbf{A}$.

Use brackets (`bmatrix`) for normal matrix, pipes (`vmatrix`) for determinants, and double pipes (`Vmatrix`) for a matrix norm.

Vectors

Topped with an arrow, $\vec{\phi}$. Vector superscripts must be shifted slightly using `\vec{\phi}^{\,\ell}`. For comparison:

$$\texttt{\textbackslash vec\{\textbackslash phi\}\^{}\{\textbackslash ell\}} \quad : \quad \vec{x}^{\ell}$$
$$\texttt{\textbackslash vec\{x\}\^{}\{\textbackslash,\textbackslash ell\}} \quad : \quad \vec{x}^{\,\ell}$$

Use hats to denote unit vectors, $\hat{\Omega}$.

In general, if a vector is made up of other vectors, use a capital letter for the larger vector, and lowercase for the smaller vectors.

$$\vec{\Phi} = \begin{bmatrix} \vec{\phi}_0 \\ \vec{\phi}_1 \end{bmatrix}$$

4 Other LaTeX specific items

Package settings

Always hide boxes from hyperref package:

```
\usepackage[hidelinks]{hyperref}
```

References and citations

For equations, use the amsmath `\eqref{label}` function.

$$E = mc^2 \tag{1}$$

This correctly formats `Eq.~\eqref{eq:relativity}` as Eq. (1).

Use `Sec.~\ref{sec:latex}` for sections, which correctly formats as Sec. 4.

For figures, use `Fig.~\ref{fig:image}`, which correctly formats as Fig. 1.

For subfigures, include the packages and commands:

```
\usepackage{caption, subcaption}
\renewcommand\thesubfigure{(\alph{subfigure})}
\captionsetup[sub]{labelformat=simple}
```

and reference the subfigure itself, which will format correctly as Fig. 2(a). See documentation for these packages if needed.

Spacing

For abbreviations use `.\` or `.~` if a tie is needed (titles or other words that should not be separated).

Normal	e.g. this example; seen in Fig. 1
Proper	e.g. this example; seen in Fig. 1

Note: the bibliography handles this correctly already.

Specify interspace spacing, `\@.` if a capital letter ends a sentence:

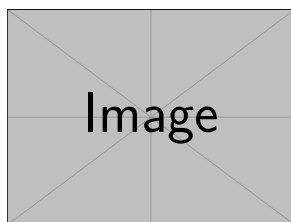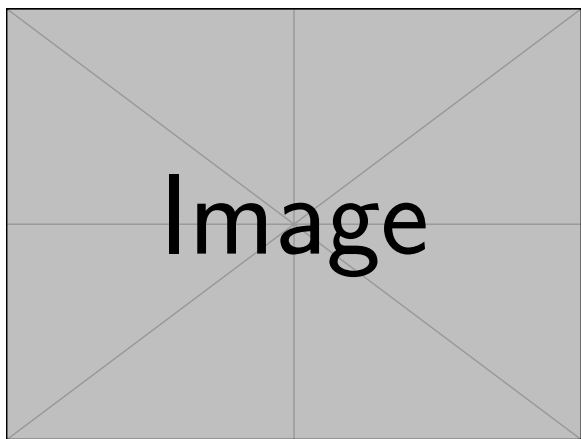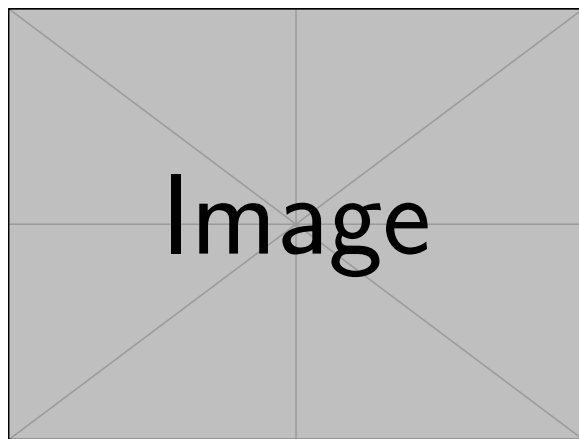|	
Normal	The code is called BART. As you can see.
Proper	The code is called BART. As you can see.

Figure 1: Single figure

(a)

(b)

Figure 2: Subfigure with parts (a) and (b).