Journal Title Here, YEAR, , 1–10
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Paper

Article Title

First Author,[1,*] Second Author,[2] Third Author,[3] Fourth Author[3] and Fifth Author[4]

[1]Department, Organization, Street, Postcode, State, Country
[2]Department, Organization, Street, Postcode, State, Country
[3]Department, Organization, Street, Postcode, State, Country
[4]Department, Organization, Street, Postcode, State, Country
[*]Corresponding author. email-id.com

Abstract

Check the journal's online author guidelines for guidance on requirements for the abstract and other components of the submitted manuscript. Abstracts must be able to stand alone and so cannot contain citations to the paper's references, equations, etc. Que cum aut etum qui ium dolupta ssequia autati odis demporepe ad et es alit rem repudaerae min et volorum re volupta nobit volectur aut fuga.

Keywords keyword1, keyword2, keyword3, keyword4

Abbreviations abbreviation1, abbreviation2, abbreviation3, abbreviation4

Additional Abstract

Use this element for elements such as Graphical abstract, Lay summary, Translated abstract etc. Que cum aut etum qui ium dolupta ssequia autati odis demporepe ad et es alit rem repudaerae min et volorum re volupta nobit volectur aut fuga.

Graphical Abstract

Key Messages

- Key boxed text here.
- Key boxed text here.
- Key boxed text here.

Introduction

The introduction introduces the context and summarizes the manuscript. It is importantly to clearly state the contributions of this piece of work. Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat. Duis aute irure dolor in reprehenderit in voluptate velit esse cillum dolore eu fugiat nulla pariatur. Excepteur sint occaecat cupidatat non proident, sunt in culpa qui officia deserunt mollit anim id est laborum.

This is an example of a new paragraph with a numbered footnote[1] and a second footnote marker.[2]

This is an example for first level head - section head

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[1] `https://www.academic.oup.com/`

[2] Example of footnote text.

Received: Date Month Year. **Revised received:** Date Month Year. **Accepted:** Date Month Year
© The Author(s) YEAR. Copyright and licence statements to be updated by the publisher during production.

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This is an example for second level head - subsection head

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This is an example for third level head - subsubsection head

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This is an example for fourth level head - paragraph head

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This is an example for fifth level head - subparagraph head

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This is an example for first level head

This is an example for second level head - subsection head

This is an example for third level head - subsubsection head

Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat. Duis aute irure dolor in reprehenderit in voluptate velit esse cillum dolore eu fugiat nulla pariatur. Excepteur sint occaecat cupidatat non proident, sunt in culpa qui officia deserunt mollit anim id est laborum.

Level three heading

Level four heading

Level five heading

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Equations

Equations in LaTeX can either be inline or set as display equations. For inline equations use the `$...$` commands. Eg: the equation $H\psi = E\psi$ is written via the command `$H \psi = E \psi$`.

For display equations (with auto generated equation numbers) one can use the equation or eqnarray environments:

$$\|\tilde{X}(k)\|^2 \leq \frac{\sum\limits_{i=1}^{p}\left\|\tilde{Y}_i(k)\right\|^2 + \sum\limits_{j=1}^{q}\left\|\tilde{Z}_j(k)\right\|^2}{p+q}, \tag{1}$$

where,

$$\begin{aligned} D_\mu &= \partial_\mu - ig\frac{\lambda^a}{2}A^a_\mu \\ F^a_{\mu\nu} &= \partial_\mu A^a_\nu - \partial_\nu A^a_\mu + gf^{abc}A^b_\mu A^a_\nu. \end{aligned} \tag{2}$$

Notice the use of `\nonumber` in the align environment at the end of each line, except the last, so as not to produce equation numbers on lines where no equation numbers are required. The `\label{}` command should only be used at the last line of an align environment where `\nonumber` is not used.

$$Y_\infty = \left(\frac{m}{\mathrm{GeV}}\right)^{-3}\left[1 + \frac{3\ln(m/\mathrm{GeV})}{15} + \frac{\ln(c_2/5)}{15}\right]. \tag{3}$$

The class file also supports the use of `\mathbb{}`, `\mathscr{}` and `\mathcal{}` commands. As such `\mathbb{R}`, `\mathscr{R}` and `\mathcal{R}` produces $\mathbb{R}$, $\mathscr{R}$ and $\mathcal{R}$ respectively (refer Subsubsection A.1.1).

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Table 1. Caption text

column 1	column 2	column 3	column 4
row 1	data 1	data 2	data 3
row 2	data 4	data 5[1]	data 6
row 3	data 7	data 8	data 9[2]

Source: This is an example of table footnote this is an example of table footnote this is an example of table footnote this is an example of table footnote this is an example of table footnote

[1]Example for a first table footnote.

[2]Example for a second table footnote.

Tables

Tables can be inserted via the normal table and tabular environment. To put footnotes inside tables one has to Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat. Duis aute irure dolor in reprehenderit in voluptate velit esse cillum dolore eu fugiat nulla pariatur. Excepteur sint occaecat cupidatat non proident, sunt in culpa qui officia deserunt mollit anim id est laborum. use the additional "tablenotes" environment enclosing the tabular environment. The footnote appears just below the table itself (refer Tables 1 and 2).

```
\begin{table}[t]
\begin{center}
\begin{minipage}{<width>}
\caption{<table-caption>\label{<table-label>}}%
\begin{tabular}{@{}llll@{}}
\toprule
column 1 & column 2 & column 3 & column 4\\
\midrule
row 1 & data 1 & data 2          & data 3 \\
row 2 & data 4 & data 5$^{1}$ & data 6 \\
row 3 & data 7 & data 8      & data 9$^{2}$\\
\botrule
\end{tabular}
\begin{tablenotes}%
\item Source: Example for source.
\item[$^{1}$] Example for a 1st table footnote.
\item[$^{2}$] Example for a 2nd table footnote.
\end{tablenotes}
\end{minipage}
\end{center}
\end{table}
```

Lengthy tables which do not fit within textwidth should be set as rotated tables. For this, we need to use `\begin{sidewaystable}... \end{sidewaystable}` instead of
`\begin{table}... \end{table}` environment.

Figures

As per display LaTeX standards one has to use eps images for `latex` compilation and `pdf/jpg/png` images for `pdflatex` compilation. This is one of the major differences between `latex` and `pdflatex`. The images should be single-page documents. The command for inserting images for `latex` and `pdflatex` can be generalized. The package used to insert images in `latex/pdflatex` is the graphicx package. Figures can be inserted via the normal figure environment as shown in the below example:

Figure 1 This is a widefig. This is an example of a long caption this is an example of a long caption this is an example of a long caption this is an example of a long caption

```
\begin{figure}[t]
        \centering\includegraphics{<eps-file>}
        \caption{<figure-caption>}
        \label{<figure-label>}
\end{figure}
```

Test text here.

For sample purposes, we have included the width of images in the optional argument of `\includegraphics` tag. Please ignore this. Lengthy figures which do not fit within textwidth should be set in rotated mode. For rotated figures, we need to use `\begin{sidewaysfigure} ... \end{sidewaysfigure}` instead of the `\begin{figure} ... \end{figure}` environment.

Algorithms, Program codes and Listings

Packages `algorithm`, `algorithmicx` and `algpseudocode` are used for setting algorithms in latex. For this, one has to use the below format:

```
\begin{algorithm}
\caption{<alg-caption>}\label{<alg-label>}
\begin{algorithmic}[1]
. . .
\end{algorithmic}
\end{algorithm}
```

You may need to refer to the above-listed package documentations for more details before setting an `algorithm` environment. To set program codes, one has to use the `program` package. We need to use the `\begin{program} ... \end{program}` environment to set program codes.

Similarly, for `listings`, one has to use the `listings` package. The `\begin{lstlisting} ... \end{lstlisting}` environment is used to set environments similar to the `verbatim` environment. Refer to the `lstlisting` package documentation for more details on this.

Table 2. Example of a lengthy table which is set to full textwidth.

Project	Element 1[1]			Element 2[2]		
	Energy	σ_{calc}	σ_{expt}	Energy	σ_{calc}	σ_{expt}
Element 3	990 A	1168	1547 ± 12	780 A	1166	1239 ± 100
Element 4	500 A	961	922 ± 10	900 A	1268	1092 ± 40

Note: This is an example of table footnote this is an example of table footnote this is an example of table footnote this is an example of table footnote this is an example of table footnote

[1]Example for a first table footnote.

[2]Example for a second table footnote.

Figure 2 This is a widefig. This is an example of a long caption this is an example of a long caption this is an example of a long caption this is an example of a long caption

Algorithm 1 Calculate $y = x^n$

Require: $n \geq 0 \vee x \neq 0$
Ensure: $y = x^n$
$y \Leftarrow 1$
if $n < 0$ **then**
  $X \Leftarrow 1/x$
  $N \Leftarrow -n$
else
  $X \Leftarrow x$
  $N \Leftarrow n$
end if
while $N \neq 0$ **do**
  if N is even **then**
    $X \Leftarrow X \times X$
    $N \Leftarrow N/2$
  else[N is odd]
    $y \Leftarrow y \times X$
    $N \Leftarrow N - 1$
  end if
end while

```
for i:=maxint to 0 do
begin
{ do nothing }
end;
Write('Case-insensitive-');
Write('Pascal-keywords.');
```

Cross referencing

Environments such as figure, table, equation, and align can have a label declared via the `\label{#label}` command. For figures and table environments one should use the `\label{}` command inside or just below the `\caption{}` command. One can then use the `\ref{#label}` command to cross-reference them. As an example, consider the label declared for Figure 1 which is `\label{fig1}`. To cross-reference it, use the command `Figure \ref{fig1}`, for which it comes up as "Figure 1".

Details on reference citations

With standard numerical .bst files, only numerical citations are possible. With an author-year .bst file, both numerical and author-year citations are possible.

If author-year citations are selected, `\bibitem` must have one of the following forms:

```
\bibitem[Jones et al.(1990)]{key}...
\bibitem[Jones et al.(1990)Jones,
                Baker, and Williams]{key}...
\bibitem[Jones et al., 1990]{key}...
\bibitem[\protect\citeauthoryear{Jones,
                Baker, and Williams}
                {Jones et al.}{1990}]{key}...
\bibitem[\protect\citeauthoryear{Jones et al.}
                {1990}]{key}...
\bibitem[\protect\astroncite{Jones et al.}
                {1990}]{key}...
\bibitem[\protect\citename{Jones et al., }
                1990]{key}...
\harvarditem[Jones et al.]{Jones, Baker, and
                Williams}{1990}{key}...
```

This is either to be made up manually, or to be generated by an appropriate .bst file with BibTeX. Then,

```
                        Author-year mode
                            || Numerical mode
\citet{key} ==>>  Jones et al. (1990)
                            || Jones et al. [21]
\citep{key} ==>> (Jones et al., 1990) || [21]
```

Table 3. Tables which are too long to fit, should be written using the "sidewaystable" environment as shown here

Projectile	Element 1[1]			Element[2]		
	Energy	σ_{calc}	σ_{expt}	Energy	σ_{calc}	σ_{expt}
Element 3	990 A	1168	1547 ± 12	780 A	1166	1239 ± 100
Element 4	500 A	961	922 ± 10	900 A	1268	1092 ± 40

Note: This is an example of a table footnote this is an example of a table footnote this is an example of a table footnote this is an example of a table footnote this is an example of a table footnote

[1] This is an example of a table footnote

Figure 3 This is an example for a sideways figure. This is an example of a long caption this is an example of a long caption this is an example of a long caption this is an example of a long caption

Multiple citations as normal:

```
\citep{key1,key2} ==> (Jones et al., 1990;
                       Smith, 1989)||[21,24]
       or (Jones et al., 1990, 1991)||[21,24]
       or (Jones et al., 1990a,b)   ||[21,24]
```

\cite{key} is the equivalent of \citet{key} in author-year mode and of \citep{key} in numerical mode. Full author lists may be forced with \citet* or \citep*, e.g.

```
\citep*{key} ==>> (Jones, Baker, and Mark, 1990)
```

Optional notes as:

```
\citep[chap. 2]{key}     ==>>
       (Jones et al., 1990, chap. 2)
\citep[e.g.,][]{key}     ==>>
       (e.g., Jones et al., 1990)
\citep[see][pg. 34]{key} ==>>
       (see Jones et al., 1990, pg. 34)
```

(Note: in standard LaTeX, only one note is allowed, after the ref. Here, one note is like the standard, two make pre- and post-notes.)

```
\citealt{key}   ==>> Jones et al. 1990
\citealt*{key}  ==>> Jones, Baker, and
                     Williams 1990
\citealp{key}   ==>> Jones et al., 1990
\citealp*{key}  ==>> Jones, Baker, and
                     Williams, 1990
```

Additional citation possibilities (both author-year and numerical modes):

```
\citeauthor{key}       ==>> Jones et al.
\citeauthor*{key}      ==>> Jones, Baker, and
                            Williams
\citeyear{key}         ==>> 1990
\citeyearpar{key}      ==>> (1990)
\citetext{priv. comm.} ==>> (priv. comm.)
\citenum{key}          ==>> 11
                            [non-superscripted]
```

Note: full author lists depend on whether the bib style supports them; if not, the abbreviated list is printed even when full is requested.
For names like della Robbia at the start of a sentence, use

```
\Citet{dRob98}      ==>> Della Robbia (1998)
\Citep{dRob98}      ==>> (Della Robbia, 1998)
\Citeauthor{dRob98} ==>> Della Robbia
```

The following is an example for \cite{...}: Rahman and Adjeroh (2019). Another example for \citep{...}: (Bahdanau et al., 2014; Imboden et al., 2018; Motiian et al., 2017; Murphy, 2012; Ji et al., 2012). Sample cites here Krizhevsky et al. (2012); Horvath and Raj (2018) and Pyrkov et al. (2018), Wang et al. (2018), LeCun et al. (2015); Zhang et al. (2018); Ravì et al. (2016).

Lists

List in LaTeX can be of three types: numbered, bulleted and unnumbered. The "enumerate" environment produces a numbered list, the "itemize" environment produces a bulleted list and the "unlist" environment produces an unnumbered list. In each environment, a new entry is added via the \item command.

1. This is the 1st item
2. Enumerate creates numbered lists, itemize creates bulleted lists and unnumerate creates unnumbered lists.
   a. Second level numbered list. Enumerate creates numbered lists, itemize creates bulleted lists and description creates unnumbered lists.
   b. Second level numbered list. Enumerate creates numbered lists, itemize creates bulleted lists and description creates unnumbered lists.
      i. Third level numbered list. Enumerate creates numbered lists, itemize creates bulleted lists and description creates unnumbered lists.
      ii. Third level numbered list. Enumerate creates numbered lists, itemize creates bulleted lists and description creates unnumbered lists.
   c. Second level numbered list. Enumerate creates numbered lists, itemize creates bulleted lists and description creates unnumbered lists.
   d. Second level numbered list. Enumerate creates numbered lists, itemize creates bulleted lists and description creates unnumbered lists.
3. Enumerate creates numbered lists, itemize creates bulleted lists and description creates unnumbered lists.
4. Numbered lists continue.

Lists in LaTeX can be of three types: enumerate, itemize and description. In each environment, a new entry is added via the \item command.

- First level bulleted list. This is the 1st item
- First level bulleted list. Itemize creates bulleted lists and description creates unnumbered lists.
  – Second level dashed list. Itemize creates bulleted lists and description creates unnumbered lists.
  – Second level dashed list. Itemize creates bulleted lists and description creates unnumbered lists.
  – Second level dashed list. Itemize creates bulleted lists and description creates unnumbered lists.
- First level bulleted list. Itemize creates bulleted lists and description creates unnumbered lists.
- First level bulleted list. Bullet lists continue.

Example for unnumbered list items:

Sample unnumberd list text. Sample unnumberd list text. Sample unnumberd list text. Sample unnumberd list text. Sample unnumberd list text.

Sample unnumberd list text. Sample unnumberd list text. Sample unnumberd list text.

sample unnumberd list text. Sample unnumberd list text. Sample unnumberd list text. Sample unnumberd list text.

Sample unnumberd list text. Sample unnumberd list text. Sample unnumberd list text.

Box 1 Box title

Sample text box text. Sample text box text. Sample text box text. Sample text box text. Sample text box text. Sample text box text. Sample text box text. Sample text box text. Sample text box text. Sample text box text. Sample text box text. Sample text box text. Sample text box text. Sample text box text. Sample text box text. Sample text box text. Sample text box text. Sample text box text. Sample text box text.

Box subheading level one

Sample text box text. Sample text box text. Sample text box text. Sample text box text. Sample text box text. Sample text box text. Sample text box text. Sample text box text. Sample text box text. Sample text box text. Sample text box text. Sample text box text. Sample text box text. Sample text box text. Sample text box text. Sample text box text. Sample text box text. Sample text box text. Sample text box text.

Box subheading level two

Sample text box text. Sample text box text. Sample text box text. Sample text box text. Sample text box text. Sample text box text. Sample text box text. Sample text box text. Sample text box text. Sample text box text. Sample text box text. Sample text box text. Sample text box text. Sample text box text. Sample text box text. Sample text box text. Sample text box text. Sample text box text. Sample text box text.

Shoulder heading Sample text box text.

Examples for theorem-like environments

For theorem-like environments, we require the `amsthm` package. There are three types of predefined theorem styles - `thmstyleone`, `thmstyletwo` and `thmstylethree` (check your journal's instructions page in case a specific style is required).

`thmstyleone`	Numbered, theorem head in bold font and theorem text in italic style
`thmstyletwo`	Numbered, theorem head in roman font and theorem text in italic style
`thmstylethree`	Numbered, theorem head in bold font and theorem text in roman style

Theorem 1 (Theorem subhead) *Example theorem text. Example theorem text. Example theorem text. Example theorem text. Example theorem text. Example theorem text. Example theorem text. Example theorem text. Example theorem text. Example theorem text.*

Quisque ullamcorper placerat ipsum. Cras nibh. Morbi vel justo vitae lacus tincidunt ultrices. Lorem ipsum dolor sit amet, consectetuer adipiscing elit. In hac habitasse platea dictumst. Integer tempus convallis augue.

Proposition 2 *Example proposition text. Example proposition text. Example proposition text. Example proposition text. Example proposition text. Example proposition text. Example proposition text. Example proposition text. Example proposition text. Example proposition text.*

Nulla malesuada porttitor diam. Donec felis erat, congue non, volutpat at, tincidunt tristique, libero. Vivamus viverra fermentum felis. Donec nonummy pellentesque ante.

Example 1 *Phasellus adipiscing semper elit. Proin fermentum massa ac quam. Sed diam turpis, molestie vitae, placerat a, molestie nec, leo. Maecenas lacinia. Nam ipsum ligula, eleifend at, accumsan nec, suscipit a, ipsum. Morbi blandit ligula feugiat magna. Nunc eleifend consequat lorem.*

Nulla malesuada porttitor diam. Donec felis erat, congue non, volutpat at, tincidunt tristique, libero. Vivamus viverra fermentum felis. Donec nonummy pellentesque ante.

Remark 1 *Phasellus adipiscing semper elit. Proin fermentum massa ac quam. Sed diam turpis, molestie vitae, placerat a, molestie nec, leo. Maecenas lacinia. Nam ipsum ligula, eleifend at, accumsan nec, suscipit a, ipsum. Morbi blandit ligula feugiat magna. Nunc eleifend consequat lorem.*

Quisque ullamcorper placerat ipsum. Cras nibh. Morbi vel justo vitae lacus tincidunt ultrices. Lorem ipsum dolor sit amet, consectetuer adipiscing elit. In hac habitasse platea dictumst.

Definition 1 (Definition sub head) Example definition text. Example definition text. Example definition text. Example definition text. Example definition text. Example definition text. Example definition text. Example definition text.

Apart from the above styles, we have the `\begin{proof} ... \end{proof}` environment - with the proof head in italic style and the body text in roman font with an open square at the end of each proof environment.

Proof Example for proof text. Example for proof text. Example for proof text. Example for proof text. Example for proof text. Example for proof text. Example for proof text. Example for proof text. Example for proof text. □

Nam dui ligula, fringilla a, euismod sodales, sollicitudin vel, wisi. Morbi auctor lorem non justo. Nam lacus libero, pretium at, lobortis vitae, ultricies et, tellus. Donec aliquet, tortor sed

accumsan bibendum, erat ligula aliquet magna, vitae ornare odio metus a mi.

Proof of Theorem 1 Example for proof text. Example for proof text. Example for proof text. Example for proof text. Example for proof text. Example for proof text. Example for proof text. Example for proof text. Example for proof text. Example for proof text. □

For a quote environment, one has to use `\begin{quote}...\end{quote}`

> Quoted text example. Aliquam porttitor quam a lacus. Praesent vel arcu ut tortor cursus volutpat. In vitae pede quis diam bibendum placerat. Fusce elementum convallis neque. Sed dolor orci, scelerisque ac, dapibus nec, ultricies ut, mi. Duis nec dui quis leo sagittis commodo.

Donec congue. Maecenas urna mi, suscipit in, placerat ut, vestibulum ut, massa. Fusce ultrices nulla et nisl (refer Figure 3). Pellentesque habitant morbi tristique senectus et netus et malesuada fames ac turpis egestas. Etiam ligula arcu, elementum a, venenatis quis, sollicitudin sed, metus. Donec nunc pede, tincidunt in, venenatis vitae, faucibus vel (refer Table 3).

Conclusion

Some Conclusions here.

Conflicts of interest

The authors declare that they have no competing interests.

Funding

This work is supported in part by funds from the National Funding Body (NFB: # XXXXXXX and # YYYYYYY).

Data availability

The data underlying this article are available in [repository name, eg, the GenBank Nucleotide Database] at [URL], and can be accessed with [unique identifier, eg, accession number, deposition number].

Author contributions statement

Must include all authors, identified by initials, for example: S.R. and D.A. conceived the experiment(s), S.R. conducted the experiment(s), S.R. and D.A. analysed the results. S.R. and D.A. wrote and reviewed the manuscript.

Acknowledgments

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References

Dzmitry Bahdanau, Kyunghyun Cho, and Yoshua Bengio. Neural machine translation by jointly learning to align and translate. *arXiv preprint arXiv:1409.0473*, 2014.

Steve Horvath and Kenneth Raj. Dna methylation-based biomarkers and the epigenetic clock theory of ageing. *Nature Reviews Genetics*, 19(6):371, 2018.

Mary T Imboden, Matthew P Harber, Mitchell H Whaley, W Holmes Finch, Derron L Bishop, and Leonard A Kaminsky. Cardiorespiratory fitness and mortality in healthy men and women. *Journal of the American College of Cardiology*, 72(19):2283–2292, 2018.

Shuiwang Ji, Wei Xu, Ming Yang, and Kai Yu. 3d convolutional neural networks for human action recognition. *IEEE Transactions on Pattern Analysis and Machine Intelligence*, 35(1):221–231, 2012.

Alex Krizhevsky, Ilya Sutskever, and Geoffrey E Hinton. Imagenet classification with deep convolutional neural networks. In *Advances in Neural Information Processing Systems*, pages 1097–1105, 2012.

Yann LeCun, Yoshua Bengio, and Geoffrey Hinton. Deep learning. *Nature*, 521(7553):436, 2015.

Saeid Motiian, Marco Piccirilli, Donald A Adjeroh, and Gianfranco Doretto. Unified deep supervised domain adaptation and generalization. In *Proceedings of the IEEE International Conference on Computer Vision*, pages 5715–5725, 2017.

Kevin P Murphy. *Machine learning: A probabilistic perspective*. MIT press, 2012.

American College of Sports Medicine et al. *ACSM's guidelines for exercise testing and prescription*. Lippincott Williams & Wilkins, 2013.

Timothy V Pyrkov, Evgeny Getmantsev, Boris Zhurov, Konstantin Avchaciov, Mikhail Pyatnitskiy, Leonid Menshikov, Kristina Khodova, Andrei V Gudkov, and Peter O Fedichev. Quantitative characterization of biological age and frailty based on locomotor activity records. *Aging (Albany NY)*, 10(10):2973, 2018.

Syed Ashiqur Rahman and Donald Adjeroh. Centroid of age neighborhoods: A generalized approach to estimate biological age. In *2019 IEEE EMBS International Conference on Biomedical & Health Informatics (BHI)*, pages 1–4. IEEE, 2019.

Daniele Ravì, Charence Wong, Fani Deligianni, Melissa Berthelot, Javier Andreu-Perez, Benny Lo, and Guang-Zhong Yang. Deep learning for health informatics. *IEEE Journal of Biomedical and Health Informatics*, 21(1):4–21, 2016.

Zongwei Wang, Xu Tang, Weixin Luo, and Shenghua Gao. Face aging with identity-preserved conditional generative adversarial networks. In *Proceedings of the IEEE Conference on Computer Vision and Pattern Recognition*, pages 7939–7947, 2018.

Ke Zhang, Na Liu, Xingfang Yuan, Xinyao Guo, Ce Gao, and Zhenbing Zhao. Fine-grained age estimation in the wild with attention LSTM networks. *arXiv preprint arXiv:1805.10445*, 2018.

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Table 4. This is an example of Appendix table showing food requirements of army, navy and airforce

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Example for an equation inside the appendix:

$$p = \frac{\gamma^2 - (n_C - 1)H}{(n_C - 1) + H - 2\gamma}, \tag{4}$$

$$\theta = \frac{(\gamma - H)^2(\gamma - n_C - 1)^2}{(n_C - 1 + H - 2\gamma)^2}\ . \tag{5}$$

Example of another appendix section

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$$\mathcal{L} = i\bar{\psi}\gamma^\mu D_\mu\psi - \frac{1}{4}F^a_{\mu\nu}F^{a\mu\nu} - m\bar{\psi}\psi. \tag{6}$$

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