/burl@stx null def /BU.S /burl@stx null def def /BU.SS currentpoint /burl@lly exch def /burl@llx exch def burl@stx null ne burl@endx burl@llx ne BU.FL BU.S if if burl@stx null eq burl@llx dup /burl@stx exch def /burl@endx exch def burl@lly dup /burl@boty exch def /burl@topy exch def if burl@lly burl@boty gt /burl@boty burl@lly def if def /BU.SE currentpoint /burl@ury exch def dup /burl@urx exch def /burl@endx exch def burl@ury burl@topy lt /burl@topy burl@ury def if def /BU.E BU.FL def /BU.FL burl@stx null ne BU.DF if def /BU.DF BU.BB [/H /I /Border [burl@border] /Color [burl@bordercolor] /Action « /Subtype /URI /URI BU.L » /Subtype /Link BU.B /ANN pdfmark /burl@stx null def def /BU.BB burl@stx HyperBorder sub /burl@stx exch def burl@endx HyperBorder add /burl@endx exch def burl@boty HyperBorder add /burl@boty exch def burl@topy HyperBorder sub /burl@topy exch def def /BU.B /Rect[burl@stx burl@boty burl@endx burl@topy] def /eop where begin /@ldeopburl /eop load def /eop SDict begin BU.FL end @ldeopburl def end /eop SDict begin BU.FL end def ifelse

Article Title

First Author^{1,2*}, Second Author^{2,3†} and Third Author^{1,2†}

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Abstract

The abstract serves both as a general introduction to the topic and as a brief, non-technical summary of the main results and their implications. Authors are advised to check the author instructions for the journal they are submitting to for word limits and if structural elements like subheadings, citations, or equations are permitted.

Keywords: keyword1, Keyword2, Keyword3, Keyword4

1 Introduction

The Introduction section, of referenced text [?] expands on the background of the work (some overlap with the Abstract is acceptable). The introduction should not include subheadings.

 $034 \\ 035 \\ 036$

 $038 \\ 039$

 $001 \\ 002$

^{1*}Department, Organization, Street, City, 100190, State, Country.

²Department, Organization, Street, City, 10587, State, Country.

³Department, Organization, Street, City, 610101, State, Country.

please also be aware that some stylistic choices are not supported in full text XML (publication version), including coloured font. These will not be replicated in the typeset article if it is accepted.

2 Results

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 $\begin{array}{c} 049 \\ 050 \end{array}$

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Sample body text. Sample body text.

3 This is an example for first level head—section head

3.1 This is an example for second level head—subsection head

3.1.1 This is an example for third level head—subsubsection head

Sample body text. Sample body text.

4 Equations

Equations in LATEX can either be inline or on-a-line by itself ("display equations"). For inline equations use the \$...\$ commands. E.g.: 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 align environments:

$$\|\tilde{X}(k)\|^{2} \leq \frac{\sum_{i=1}^{p} \|\tilde{Y}_{i}(k)\|^{2} + \sum_{j=1}^{q} \|\tilde{Z}_{j}(k)\|^{2}}{p+q}.$$
 (1)

where,

$$D_{\mu} = \partial_{\mu} - ig \frac{\lambda^{a}}{2} A^{a}_{\mu}$$

$$F^{a}_{\mu\nu} = \partial_{\mu} A^{a}_{\nu} - \partial_{\nu} A^{a}_{\mu} + g f^{abc} A^{b}_{\mu} A^{a}_{\nu}$$

$$(2)$$

 $094 \\ 095$

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 $105 \\ 106$

 $\begin{array}{c} 115 \\ 116 \end{array}$

121 122

 $124 \\ 125$

 $\begin{array}{c} 126 \\ 127 \end{array}$

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.

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

The class file also supports the use of \mathcal{R} , \mathcal{R} and \mathcal{R} produces \mathcal{R} , and \mathcal{R} respectively (refer Subsubsection ??).

5 Tables

Tables can be inserted via the normal table and tabular environment. To put footnotes inside tables you should use \footnotetext[]{...} tag. The footnote appears just below the table itself (refer Tables ?? and ??). For the corresponding footnotemark use \footnotemark[...]

The input format for the above table is as follows:

139		Table 1	Caption text			
140		Column 1	Column 2	Column 3	Column 4	
141						
142		row 1 row 2	data 1 data 4	$ data 2 \\ data 51 $	data 3 data 6	
143		row 3	data 7	data 8	$data 9^2$	
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145			is is an examp		otnote. This	
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147		•	for a first ta		This is an	
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149		•	for a second t table footnot		e. This is an	
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152	\midrule					
153	row 1 & data 1 &	data 2 &	data 3 \	\		
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155	row 2 & data 4 &	data 5\fo	otnotemar	k[1] & dat	ta 6 \\	
156	2 % 4-+- 7 %	J 0 %	0/4		-1- [0] \ \	
157	row 3 & data 7 &	data 8 &	data 9\I	ootnotemai	rk[2] \\	
158 159	\botrule					
160	\end{tabular}					
161	(Ond (odburar)					
162	Sou	rce: This	is an ex	ample of t	table foo	tnote.
163	This is an exampl	e of tabl	e footnot	e.}		
164 165						
165 166	\footnotetext[1]{	Example f	or a firs	t table fo	ootnote.	
160 167	This is an exampl	e of tabl	e footnot	e.}		
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169	\footnotetext[2]{	Example f	or a seco	nd table i	footnote.	
170	m			,		
171	This is an exampl	e of tabl	e footnot	e.}		
172	\end{table}					
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175	In case of double	e column la	ayout, table	es which do	not fit in	single column width
176	1 111	11 , , • 1	l/1 T2 /1:		1 , ,	
177	should be set to ru	n text wid	itn. For th	is, you nee	a to use	\begin{table*}
178	\end{table*} inste	ad of \beg	rin{table}	\end-	{table} e	nvironment. Lengthy
179						
180	tables which do not f	it in textwi	dth should	be set as rot	tated table	. For this, you need to
181	ugo \ homin faida	ra+ablal	/ o~ 4 l ~ :	domaratel	lal instac	d of \homin(+ahlam)
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183						
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Table 2 Example of a lengthy table which is set to full textwidth

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

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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.

... \end{table*} environment. This environment puts tables rotated to single column width. For tables rotated to double column width, use \begin{sidewaystable*}... \end{sidewaystable*}.

6 Figures

As per the LATEX standards you need to use eps images for LATEX compilation and pdf/jpg/png images for PDFLaTeX compilation. This is one of the major difference between LATEX and PDFLaTeX. Each image should be from a single input .eps/vector image file. Avoid using subfigures. 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:

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

 $^{^1}$ Example for a first table footnote.

 $^{^2{\}rm Example}$ for a second table footnote.

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here
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environment a
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using the
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ong to fit, s
are too l
Tables which a
Table 3

		Element 1 ¹			$ m Element^2$	
Projectile	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
Element 5		1168	1547 ± 12	780 A	1166	1239 ± 100
Element 6	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.

 $^1{\rm This}$ is an example of table footnote.



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 $\begin{array}{c} 283 \\ 284 \end{array}$

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 $\frac{308}{309}$

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 $\frac{314}{315}$

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

In case of double column layout, the above format puts figure captions/images to single column width. To get spanned images, we need to provide \begin{figure*}
... \end{figure*}.

For sample purpose, we have included the width of images in the optional argument of \includegraphics tag. Please ignore this.

7 Algorithms, Program codes and Listings

Packages algorithm, algorithmicx and algorithms in IATEX using the format:

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

You may refer above listed package documentations for more details before setting algorithm environment. For program codes, the "verbatim" package is required and the command to be used is \begin{verbatim} . . . \end{verbatim}.

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

A fast exponentiation procedure:

```
323
      begin
324
         \quad \text{for } i := 1 \ \text{to} \ 10 \ \text{step} \ 1 \ \text{do} \\
325
326
               expt(2,i);
327
               newline() od
                                                        Comments will be set flush to the right margin
328
329
       where
330
      \operatorname{proc} \operatorname{expt}(x,n) \equiv
331
332
         z := 1;
333
         do if n=0 then exit fi;
334
335
              do if odd(n) then exit fi;
336
337
                  comment: This is a comment statement;
338
                  n := n/2; x := x * x \text{ od};
339
340
              \{ n > 0 \};
341
              n := n - 1; \ z := z * x \text{ od};
342
343
         print(z).
344
      end
345
346
347
      Algorithm 1 Calculate y = x^n
348
      Require: n \ge 0 \lor x \ne 0
349
      Ensure: y = x^n
350
351
        1: y \Leftarrow 1
        2: if n < 0 then
352
               X \Leftarrow 1/x
353
354
        4:
               N \Leftarrow -n
355
        5: else
               X \Leftarrow x
356
        6:
               N \Leftarrow n
357
        7:
        8: end if
358
        9: while N \neq 0 do
359
               if N is even then
360
       10:
361
      11:
                   X \Leftarrow X \times X
                   N \Leftarrow N/2
362
      12:
               \mathbf{else}[N \text{ is odd}]
363
      13:
                   y \Leftarrow y \times X
364
      14:
365
                   N \Leftarrow N - 1
      15:
               end if
366
      16:
       17: end while
367
368
```

```
for i:=maxint to 0 do

begin
{ do nothing }
end;
Write('Case_insensitive_');
Write('Pascal_keywords.');
```

 $\frac{369}{370}$

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 $\begin{array}{c} 372 \\ 373 \end{array}$

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8 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 use the \label{} command inside or just below the \caption{} command. You can then use the \ref{#label} command to cross-reference them. As an example, consider the label declared for Figure ?? which is \label{fig1}. To cross-reference it, use the command Figure \ref{fig1}, for which it comes up as "Figure ??".

To reference line numbers in an algorithm, consider the label declared for the line number 2 of Algorithm ?? is \label{algln2}. To cross-reference it, use the command \ref{algln2} for which it comes up as line ?? of Algorithm ??.

8.1 Details on reference citations

Standard IATEX permits only numerical citations. To support both numerical and author-year citations this template uses natbib IATEX package. For style guidance please refer to the template user manual.

Here is an example for \cite{...}: [?]. Another example for \citep{...}: [?]. For author-year citation mode, \cite{...} prints Jones et al. (1990) and \citep{...} prints (Jones et al., 1990).

 $\begin{array}{c} 420 \\ 421 \end{array}$

9 Examples for theorem like environments

For theorem like environments, we require amsthm package. There are three types of predefined theorem styles exists—thmstyleone, thmstyletwo and thmstylethree

426 427

 $428 \\ 429 \\ 430 \\ 431$

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

 $436\\437$

For mathematics journals, theorem styles can be included as shown in the following examples:

 $438 \\ 439 \\ 440 \\ 441$

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

Sample body text. Sample body text. Sample body text. Sample body text. Sample body text. Sample body text.

Proposition 2. Example proposition text. Example proposition text.

Sample body text. Sample body text. Sample body text. Sample body text. Sample body text. Sample body text.

 $\begin{array}{c} 459 \\ 460 \end{array}$

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.

 $461 \\ 462$

 $463 \\ 464$

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481 482

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 $486 \\ 487$

 $488 \\ 489$

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 $\frac{492}{493}$

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Sample body text. Sample body text.

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 conseguat lorem.

Sample body text. Sample body text.

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

Additionally a predefined "proof" environment is available: \begin{proof} ... \end{proof}. This prints a "Proof" head in italic font style and the "body text" in roman font style with an open square at the end of each proof environment.

Proof. Example for proof text. \Box

Sample body text. Sample body text.

Proof of Theorem??. Example for proof text. Example for proof text.