

The `thinsp` package

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Summary

The `thinsp` package provides a stretchable `\thinspace` to replace L^AT_EX's normal `\thinspace`.

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1 Introduction

The normal `\thinspace` command which L^AT_EX provides as standard is a fixed space of 0.16667em, with no stretching. This gives an awkward spacing when using `\thinspace` in underfull `\hbox`'s.

Say, I wanted to create a certain box with the name P. A. M. Dirac in it. To provide a proper spacing between the initials I use a `\thinspace` between the letters. Here shown with some `\framebox`'es.

```
\noindent\framebox{P.\,A.\,M. Dirac}\  
\framebox[\linewidth][s]{P.\,A.\,M. Dirac created  
relativistic quantum mechanics}
```

Then I would get something looking like this when using the original `\thinspace` from L^AT_EX:

P. A. M. Dirac
P. A. M. Dirac created relativistic quantum mechanics

In this example with the original spacing if `\thinspace` the spacing between the initials is the same, whether or not the `\hbox` is underfull and need some stretching or not. This makes the initials to appear “unnaturally” close when comparing them to the other characters.

With a `\thinspace` that is stretchable like the normal space, the resulting box is appearing more natural.

P. A. M. Dirac
P. A. M. Dirac created relativistic quantum mechanics

2 Usage

The simplest usage of the package is simply adding

```
\usepackage{thinsp}
```

to your preamble.

The `\thinspace` command as well as the `\,` shortcut is replaced by the stretchable `\thinspace`

The package furthermore provides a command `\thinthinspace` with half the width of `\thinspace`.

2.1 Options

Option	Description
<code>nothinspace</code>	Disables the replacement of <code>\thinspace</code> . The stretchable <code>thinspace</code> is still available as <code>\stretchthinspace</code> .
<code>thinspace</code>	Dummy option as counterpart to <code>nothinspace</code>
<code>nothinthinspace</code>	Disables the possible ¹ replacement of <code>\thinthinspace</code> . The stretchable <code>thinthinspace</code> is still available as <code>\stretchthinthinspace</code> .
<code>thinthinspace</code>	Dummy option as counterpart to <code>nothinthinspace</code>
<code>negthinspace</code>	Provides a stretchable <code>\negthinspace</code> . This is not default, as <code>\negthinspace</code> may be used with caution anyway, and almost always should be replaced by a manually <code>\kern</code> . A stretchable <code>\negthinspace</code> is available as <code>\stretchnegthinspace</code>
<code>nonegthinspace</code>	Dummy option as counterpart to <code>negthinspace</code>
<code>onehalf</code>	Ajusting the stretchable <code>\thinspace</code> to half of the ordinary space. This is default, as it appears just like the original <code>\thinspace</code> in boxes that are not stretched.
<code>onethird</code>	Ajusting the stretchable <code>\thinspace</code> to one third of the ordinary space.
<code>twothirds</code>	Ajusting the stretchable <code>\thinspace</code> to two thirds of the ordinary space. This is the author's favourite. . .

3 `thinsp` and other packages

As the package `amsmath` redefines `\thinspace` as well, there is a minor clash between these two packages. Hence `thinsp` redefines `\thinspace` at the beginning of the document, and if `amsmath` is loaded, the `\thinspace` is redefined in an “`amsmath` way”.

4 Bug reports and comments

Any comment on this package can be sent to the author on his e-mail address: `hamselv@pallej.dk`.

¹Some packages provide a `\thinthinspace` command

5 Copyright and license

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The license of the `thinsp` package and this documentation is GNU General Public License (GPL).

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A Source code of thinsp.sty

```
% Copyright (C) 2007 Palle Jorgensen

% This file is free software; you can redistribute it
% and/or modify it
% under the terms of the GNU General Public License as
% published by
% the Free Software Foundation; either version 2 of the
% License, or
% (at your option) any later version.

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% useful, but
% WITHOUT ANY WARRANTY; without even the implied
% warranty of
% MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE.
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% General Public License for more details.

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% Public License
% along with this file; if not, write to the Free
% Software Foundation,
% Inc., 51 Franklin Street, Fifth Floor, Boston, MA
% 02110-1301, USA.

\ProvidesPackage{thinsp}[2007/30/11 v 0.1 Package
  providing stretchable thinspaces]

\newif\if@thinsp@thinspace
\@thinsp@thinspacefalse
\DeclareOption{nothinspace}{\@thinsp@thinspacefalse}
\DeclareOption{thinspace}{\@thinsp@thinspacetrue}

\newif\if@thinsp@thinthinspace
\@thinsp@thinthinspacefalse
\DeclareOption{nothinthinspace}{\@thinsp@thinthinspacefalse}
\DeclareOption{thinthinspace}{\@thinsp@thinthinspacetrue}
```

```

\newif\if@thinsp@negthinspace
\@thinsp@negthinspacefalse
\DeclareOption{nonegthinspace}{\
  \@thinsp@negthinspacefalse}
\DeclareOption{negthinspace}{\@thinsp@negthinspacetrue}

\def\thinsp@thinamount{.5}
\def\thinsp@thinthinamount{.25}

\DeclareOption{onethird}{%
  \def\thinsp@thinamount{.333}%
  \def\thinsp@thinthinamount{.167}%
}

\DeclareOption{onehalf}{%
  \def\thinsp@thinamount{.5}%
  \def\thinsp@thinthinamount{.25}%
}

\DeclareOption{twothirds}{%
  \def\thinsp@thinamount{.667}%
  \def\thinsp@thinthinamount{.333}%
}

\ProcessOptions*

\def\stretchthinspace{%
  \nobreak\hskip\thinsp@thinamount\fontdimen2\font%
  \@plus\thinsp@thinamount\fontdimen2\font%
  \@minus\thinsp@thinamount\fontdimen4\font%
  \relax%
}

\def\stretchnegthinspace{%
  \nobreak\hskip-\thinsp@thinamount\fontdimen2\font%
  \@plus\thinsp@thinamount\fontdimen4\font%
  \@minus\thinsp@thinamount\fontdimen3\font%
  \relax%
}

\def\stretchthinthinspace{%
  \nobreak\hskip\thinsp@thinthinamount\fontdimen2\font%
  \@plus\thinsp@thinthinamount\fontdimen3\font%
  \@minus\thinsp@thinthinamount\fontdimen4\font%
}

```

```

\relax%
}

\AtBeginDocument{%
\if@thinsp@thinspace
\PackageInfo{thinsp}{Redefining \string\thinspace}
\let\thinspace\stretchthinspace
\@ifpackageloaded{amsmath}{%
\PackageInfo{thinsp}{And now redefining AMS-math's
\string\thinspace}
\def\,\{\ifmmode\mskip\thinmuskip\else\
stretchthinspace\fi}%
\let\thinspace\,%
}
\fi
%
\if@thinsp@negthinspace
\PackageInfo{thinsp}{Redefining \string\negthinspace}
\let\negthinspace\stretchnegthinspace
\@ifpackageloaded{amsmath}{%
\PackageInfo{thinsp}{And now redefining AMS-math's
\string\negthinspace}
\def\!{\ifmmode\mskip-\thinmuskip\else\
stretchnegthinspace\fi}%
\let\negthinspace\!%
}
\fi
%
\if@thinsp@thinthinspace
\@ifundefined{thinthinspace}{}{%
\PackageInfo{thinsp}{Redefining \string\
thinthinspace}}
\let\thinthinspace\stretchthinthinspace
\fi
}

\endinput

```

B Source code of this document

```
\pdfoutput1
\documentclass[a4paper,11pt,british]{article}
\usepackage[T1]{fontenc}
\usepackage{babel,thinsp,listings,tabularx,booktabs,
ragged2e,hyperref,textcomp}
\author{Palle J\o rgensen}
\title{The \thinsp\ package}
\def\origthinspace{\kern .16667em }
\def\orignegthinspace{\kern -.16667em }
\def\thinsp{\texttt{thinsp}}
\def\strthinspace{\texttt{\string\thinspace}}
\lstset{language=[latex]tex,breaklines=true}
\setcounter{tocdepth}{1}
\begin{document}
\maketitle
```

```
\section*{Summary}
\label{sec:summary}
```

The `\thinsp\ package` provides a stretchable `\strthinspace\` to replace `\LaTeX`'s normal `\strthinspace`.

```
\tableofcontents
```

```
\section{Introduction}
\label{sec:introduction}
```

The normal `\strthinspace\` command which `\LaTeX\` provides as standard is a fixed space of 0.16667em, with no stretching. This gives an awkward spacing when using `\strthinspace\` in underfull `\verb+\hbox+`'s.

Say, I wanted to create a certain box with the name P
. ,A. ,M. Dirac
in it. To provide a proper spacing between the initials
I use a
`\strthinspace\` between the letters. Here shown with
some

`\verb+\framebox+'es.`

```
\begin{verbatim}
\noindent\fbbox{P.\,A.\,M. Dirac}\\\
\framebox[\linewidth][s]{P.\,A.\,M. Dirac created
  relativistic quantum mechanics}
\end{verbatim}
```

Then I would get something looking like this when using the original

`\strthinspace\` from `\LaTeX\medskip`:

```
\noindent\fbbox{P.\origthinspace A.\origthinspace M.
  Dirac}\\\ \framebox[\linewidth][s]{P.\origthinspace A
  .\origthinspace
  M. Dirac created relativistic quantum mechanics}\
  \medskip
```

In this example with the original spacing if `\strthinspace\` the spacing between the initials is the same, whether or not the

`\verb+\hbox+` is underfull and need some stretching or not. This makes the initials to appear “unnaturally” close when comparing them to the other characters.

With a `\strthinspace\` that is stretchable like the normal space, the resulting box is appearing more natural. `\medskip`

```
\noindent\fbbox{P.\,A.\,M. Dirac}\\\
\framebox[\linewidth][s]{P.\,A.\,M. Dirac created
  relativistic quantum
  mechanics}\medskip
```

```
\section{Usage}
\label{sec:usage}
```

The simplest usage of the package is simply adding

```
\begin{lstlisting}
\usepackage{thinsp}
\end{lstlisting}
```

to your preamble.

The the `\strthinspace` command as well as the `\verb+\,+` shortcut is replaced by the stretchable `\strthinspace`

The package furthermore provides a command `\verb+\thinthinspace+` with half the width of `\strthinspace`.

```
\subsection{Options}
\label{sec:options}
```

```
\begin{tabularx}{\linewidth}{>{\ttfamily}l>{\RaggedRight}X}
\toprule
\textrm{Option} & Description \\
\midrule
```

`nothinspace` & Disables the replacement of `\strthinspace`.

The stretchable `thinspace` is still available as `\texttt{\string\stretchthinspace}`.

`thinspace` & Dummy option as counterpart to `\texttt{nothinspace}`.

`nothinthinspace` & Disables the possible `\footnotemark` replacement of `\texttt{\string\thinthinspace}`. The stretchable `thinthinspace` is still available as `\texttt{\string\stretchthinthinspace}`.

`thinthinspace` & Dummy option as counterpart to `\texttt{nothinthinspace}`.

`negthinspace` & Provides a stretchable `\texttt{\string\negthinspace}`.

This is not default, as `\texttt{\string\negthinspace}` may be used with caution anyway, and almost always should be replaced by a manually `\texttt{\string\kern}`. A stretchable

`\texttt{\string\negthinspace}` is available as
`\texttt{\string\stretchnegthinspace}\`

`nonegthinspace` & Dummy option as counterpart to
`\texttt{negthinspace}\`

`\midrule`

`onehalf` & Adjusting the stretchable `\strthinspace\` to
half of the
ordinary space. This is default, as it appears just
like the
original `\strthinspace\` in boxes that are not
stretched.\

`onethird` & Adjusting the stretchable `\strthinspace\` to
one third of
the ordinary space.\

`twothirds` & Adjusting the stretchable `\strthinspace\`
to two thirds of
the ordinary space. This is the author's favourite
dots\

`\bottomrule`
`\end{tabularx}`
`\footnotetext`{Some packages provide a `\texttt{\string\`
`thinthinspace}`
command}

`\section{\thinsp\ and other packages}`
`\label{sec:thinsp-other-pack}`

As the package `\texttt{amsmath}` redefines `\strthinspace`
`\` as well,
there is a minor clash between these two packages.

Hence `\thinsp\`
redefines `\strthinspace\` at the beginning of the
document, and if
`\texttt{amsmath}` is loaded, the `\strthinspace\` is
redefined in an
“`\texttt{amsmath}` way”.

`\section{Bug reports and comments}`
`\label{sec:bug-reports-comments}`

Any comment on this package can be sent to the author
on his e-mail
address: `\url{hamselv@pallej.dk}`.

```
\section{Copyright and license}  
\label{sec:copyright-license}
```

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The license of the `\thinsp\` package and this
documentation is GNU
General Public License (GPL).

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Public License
along with this bundle; if not, write to the Free
Software Foundation,
Inc., 51 Franklin Street, Fifth Floor, Boston, MA
02110-1301, USA.

```
\appendix  
\clearpage
```

```
\section{Source code of \texttt{thinsp.sty}}  
\label{sec:source-code-thinsp.s}
```

```
\lstinputlisting{thinsp.sty}
```

```
\clearpage
```

```
\section{Source code of this document}  
\label{sec:source-code-this}
```

```
\lstinputlisting{\jobname.tex}
```

```
\end{document}
```

```
%%% Local Variables:  
%%% mode: latex  
%%% TeX-master: t  
%%% End:
```