IMAC version 1.01: A LaTeX PACKAGE FOR WRITING PAPERS IN INTERNATIONAL MODAL ANALYSIS CONFERENCE (IMAC) FORMAT

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ABSTRACT

Just like in any other LaTeX document, you begin the abstract, make the title, and define the author as shown in the example. Not that IMAC requires that the author names be in bold, so you have to do this yourself. In addition, I haven't yet hacked the style definition for the title. Maybe I will later, but that's a minor inconvenience.

NOMENCLATURE

$[M]$	matrix
$[\backslash M \backslash]$	diagonal matrix
$\{\Phi\}$	vector
(M_{11})	single element of $[M]$
$\|x\|_p$	p-norm of $\{x\}$
$\begin{bmatrix} [M]_{11} & : & [M]_{12} \\ \cdots & : & \cdots \\ [M]_{21} & : & [M]_{22} \end{bmatrix}$	partitioned matrix

1 CHANGES

The only change since 1.00 is the inclusion of the GNU public license.

2 TYPING YOUR DOCUMENT

First thing to note is that the IMAC style indents the first line of each paragraph, including the paragraph immediately following a section header. You can override the LaTeX default of not indenting by using the command each time after a `\section` command or by using the package `indentfirst` which can be downloaded from any CTAN location.

The second thing which you may need to do is obtain and install the packages: `cite`, `citesort`, `ifthen`, and `amsmath`. Things will also work out a little nicer if you have the `helvet` package, but it is not necessary. If you do have the `helvet` package, you should uncomment the line `\usepackage{helvet}` above.

The PostScript® file `imac.ps` can be viewed in `GhostScript` or printed to a ps printer for comparison to the results you obtain from LaTeXing this document.

A few macros have been defined below for conforming to the IMAC[1] notation convention (See Table 1). If you use them, you can simply redefine the macros according to the journal requirements when the time comes for submission. I've defined only those that I thought were either difficult or do not conform to normal textbook standards. You may find it useful to define your own macros at the end of the file `imac.sty`, but please make sure that you don't delete them the next time you update!

In Table 1 you'll also see some code for making a partitioned matrix. Sorry, but I don't know how to turn this into an environment. If you figure it out, let me know and I'll incorporate it. The colons form the horizontal delimiters and the `\hdotsfor` command forms the vertical delimiters. The first argument represents a spacing of the dots, and the second required argument is the number of columns that the dotted line should span.

Please contact me at `jslater@cs.wright.edu` if you find bugs in this. I'll do my best to fix them in s timely fashion. Please don't contact me with respect to general LaTeX questions. I don't have the time for that kind of inundation. For help with LaTeX please consult Lamport[2], Goossens et al[3], and/or Kopka and Daly[4]. Additional resources are available through the TeX newsgroup `comp.text.tex`, the CTAN archives at `http://www.ucc.ie/cgi-bin/ctan`, and the TeXusers group (TUG) home page (`http://www.tug.org/`).

$[M]$	`\matr{M}`	matrix
$\lceil M \rfloor$	`\dmat{M}`	diagonal matrix
$\{\Phi\}$	`\vect{\Phi}`	vector
(M_{11})	`\elem{M_{11}}`	single element of $[M]$
$\Vert x \Vert_p$	`\pnorm{x}`	p-norm of $\{x\}$

$\begin{bmatrix}[M]_{11} & : & [M]_{12}\\ \cdots & : & \cdots \\ [M]_{21} & : & [M]_{22}\end{bmatrix}$	`\begin{bmatrix}`
	`\matr{M}_{11}&:&\matr{M}_{12}\\`
	`\hdotsfor[2]{1}&:&\hdotsfor[2]{1}\\`
	`\matr{M}_{21}&:&\matr{M}_{22}`
	`\end{bmatrix}`
		partitioned matrix

TABLE 1: Defined macros

There once was a figure here

Figure 1: Here is a figure.

Blade Number	Random 1	Random 2	Random 3
	10^{-3} Kg	10^{-3} Kg	10^{-3} Kg
1	0.0168	0.3343	0.3413
2	0.0260	0.2867	0.4431
3	0.2579	0.4529	0.3710

TABLE 2: Simple table.

From here on is just some examples to give you some continuing examples of how to do things. The table would have been better off if I have use the `hhline` package.

3 HERE IS A SECTION

In bladed disk assemblies, the disk acts as a coupling device between the blades. As the stiffness of the disk increases, blade coupling decreases. It has been shown that weak interblade coupling leads to high levels of mode localization when blades are mistuned.

3.1 This is a subsection

All models used in this study were variations of the symmetric, constant stiffness system referred to as the baseline model (Figure 1). Yada yada.

... and that's it! If you can't get it to work, I can be reached at `jslater@cs.wright.edu`.

ACKNOWLEDGMENTS

Note that for the Acknowledgments you need to use the `\section` command in the starred form to avoid getting the section number.

Thanks to Leslie Lamport[2], Goossens, Mittelbach, and Samarin[3] and all others who've built LaTeX into what it is today.

REFERENCES

[1] **Ewins, D. J.**, *Notation for Modal Testing & Analysis*, *Imperial College, London SW7 2BX, UK*, 1993.

[2] **Lamport, L.**, LaTeX: A Document Preparation System, Addison-Wesley, 2nd edn., 1994.

[3] **Goossens, M., Mittlebach, F.** and **Samarin, A.**, The LaTeXCompanion, Addison-Wesley, 1994.

[4] **Kopka, H.** and **Daly, P. W.**, A Guide to LaTeX2e, Addison-Wesley, 1995.