

# Long title that appears on the title page

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## Abstract

Shell document for REVTeX 4.

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### I. ABOUT THIS SHELL

This shell document provides a sample layout of a REVTeX4 document.

The front matter has a number of sample entries that you should replace with your own. Replace this text with your own. You may delete all of the text in this document to start with a blank document.

Changes to the typeset format of this shell and its associated L<sup>A</sup>T<sub>E</sub>X formatting file (`revtex4.cls`) are not supported by MacKichan Software, Inc. If you wish to make such changes, please consult the L<sup>A</sup>T<sub>E</sub>X manuals or a local L<sup>A</sup>T<sub>E</sub>X expert.

If you modify this document and save it as “REVTeX4 (Test Version).shl” in the `Shells\Articles\SW` directory, it will become your new REVTeX4 (Test Version) shell.

The typesetting specification selected by this shell document uses the default class options. There are a number of class options supported by this typesetting specification. The available options include setting the paper size and the point size of the font used in the body of the document. Select **Typeset, Options and Packages**, the **Class Options** tab and

then click the **Modify** button to see the class options that are available for this typesetting specification.

## II. FEATURES OF THIS SHELL

### A Subsection

Use the `Section` tag for major sections, and the `Subsection` tag for subsections.

#### 1 Subsubsection

This is just some harmless text under a subsubsection.

a Subsubsubsection This is just some harmless text under a subsubsubsection.

Subsubsubsubsection This is just some harmless text under a subsubsubsubsection.

### B REVTeX Specific Symbols

REVTeX defines some new symbols and accents that are not understood by the SW interface. The table below names each symbol or accent and shows an example of its use.

<code>\lambdabar:</code>	$\lambda$	<code>\openone:</code>	$\mathbb{1}$	<code>\corresponds:</code>	$\triangleq$	<code>\ vereq{a}{b}:</code>	$a \sim b$
<code>\tensor{}{}</code> :	$\vec{x}$	<code>\overstar{}{}</code> :	$\vec{\mathfrak{x}}$	<code>\overdots{}{}</code> :	$\vec{x}$	<code>\overcirc{}{}</code> :	$\mathring{x}$
<code>\loarrow{}{}</code> :	$\overleftarrow{x}$	<code>\roarrow{}{}</code> :	$\overrightarrow{x}$				

### C Tags

You can apply the logical markup tag *Emphasized*.

You can apply the visual markup tags **Bold**, *Italics*, Roman, **Sans Serif**, **Slanted**, **SMALL CAPS**, and **Typewriter**.

You can apply the special, mathematics only, tags **BLACKBOARD BOLD**, **CALLIGRAPHIC**, and **fraktur**. Note that blackboard bold and calligraphic are correct only when applied to uppercase letters A through Z.

You can apply the size tags `tiny`, `scriptsize`, `footnotesize`, `small`, `normalsize`, `large`, `Large`, `LARGE`, `huge` and `Huge`.

This is a Body Math paragraph. Each time you press the Enter key, Scientific WorkPlace switches to mathematics mode. This is convenient for carrying out “scratchpad” computations.

Following is a group of paragraphs marked as Body Quote. This environment is appropriate for a short quotation or a sequence of short quotations.

The buck stops here. *Harry Truman*

Ask not what your country can do for you; ask what you can do for your country.

*John F Kennedy*

I am not a crook. *Richard Nixon*

It's no exaggeration to say the undecideds could go one way or another. *George Bush*

I did not have sexual relations with that woman, Miss Lewinsky. *Bill Clinton*

The Quotation tag is used for quotations of more than one paragraph. Following is the beginning of *Alice's Adventures in Wonderland* by Lewis Carroll:

Alice was beginning to get very tired of sitting by her sister on the bank, and of having nothing to do: once or twice she had peeped into the book her sister was reading, but it had no pictures or conversations in it, 'and what is the use of a book,' thought Alice 'without pictures or conversation?'

So she was considering in her own mind (as well as she could, for the hot day made her feel very sleepy and stupid), whether the pleasure of making a daisy-chain would be worth the trouble of getting up and picking the daisies, when suddenly a White Rabbit with pink eyes ran close by her.

There was nothing so very remarkable in that; nor did Alice think it so very much out of the way to hear the Rabbit say to itself, 'Oh dear! Oh dear! I shall be late!' (when she thought it over afterwards, it occurred to her that she ought

to have wondered at this, but at the time it all seemed quite natural); but when the Rabbit actually took a watch out of its waistcoat-pocket, and looked at it, and then hurried on, Alice started to her feet, for it flashed across her mind that she had never before seen a rabbit with either a waistcoat-pocket, or a watch to take out of it, and burning with curiosity, she ran across the field after it, and fortunately was just in time to see it pop down a large rabbit-hole under the hedge.

In another moment down went Alice after it, never once considering how in the world she was to get out again.

Use the `Verbatim` tag when you want `LATEX` to preserve spacing, perhaps when including a fragment from a program such as:

```
#include <iostream>           // < > is used for standard libraries.
void main(void)             // "main" method always called first.
{
    cout << "Hello World."; // Send to output stream.
}
```

## D Mathematics and Text

Let  $H$  be a Hilbert space,  $C$  be a closed bounded convex subset of  $H$ ,  $T$  a nonexpansive self map of  $C$ . Suppose that as  $n \rightarrow \infty$ ,  $a_{n,k} \rightarrow 0$  for each  $k$ , and  $\gamma_n = \sum_{k=0}^{\infty} (a_{n,k+1} - a_{n,k})^+ \rightarrow 0$ . Then for each  $x$  in  $C$ ,  $A_n x = \sum_{k=0}^{\infty} a_{n,k} T^k x$  converges weakly to a fixed point of  $T$ .

The numbered equation

$$u_{tt} - \Delta u + u^5 + u |u|^{p-2} = 0 \text{ in } \mathbf{R}^3 \times [0, \infty[ \quad (1)$$

is automatically numbered as equation 1.

## E List Environments

You can create numbered, bulleted, and description lists using the Item Tag popup list on the Tag toolbar.

1. List item 1
2. List item 2
  - (a) A list item under a list item.

The typeset style for this level is different than the screen style. The screen shows a lower case alphabetic character followed by a period while the typeset style uses a lower case alphabetic character surrounded by parentheses.

- (b) Just another list item under a list item.
  - i. Third level list item under a list item.
    - A. Fourth and final level of list items allowed.

- Bullet item 1
- Bullet item 2
  - Second level bullet item.
    - \* Third level bullet item.
      - Fourth (and final) level bullet item.

**Description List** Each description list item has a term followed by the description of that term. Double click the term box to enter the term, or to change it.

**Bunyip** Mythical beast of Australian Aboriginal legends.

## F Theorem-like Environments

The following theorem-like environments (in alphabetical order) are available in this style.

**Acknowledgement 1** *This is an acknowledgement*

**Algorithm 2** *This is an algorithm*

**Axiom 3** *This is an axiom*

**Claim 4** *This is a claim*

**Conclusion 5** *This is a conclusion*

**Condition 6** *This is a condition*

**Conjecture 7** *This is a conjecture*

**Corollary 8** *This is a corollary*

**Criterion 9** *This is a criterion*

**Definition 10** *This is a definition*

**Example 11** *This is an example*

**Exercise 12** *This is an exercise*

**Lemma 13** *This is a lemma*

**Proof.** This is the proof of the lemma. ■

**Notation 14** *This is notation*

**Problem 15** *This is a problem*

**Proposition 16** *This is a proposition*

**Remark 17** *This is a remark*

**Solution 18** *This is a solution*

**Summary 19** *This is a summary*

**Theorem 20** *This is a theorem*

**Proof of the Main Theorem.** This is the proof. ■

## ACKNOWLEDGMENTS

Use this optional section for any acknowledgments you wish to add to your paper.

## **APPENDIX A: THE FIRST APPENDIX**

The appendix fragment is used only once. Subsequent appendices can be created using the Section Section/Body Tag.