### Standard IAEX Report

The Author
Institution or Address

The Date

#### **Abstract**

This is the text of the abstract. Abstracts give a short synopsis of the report, noting the major points developed in the course of the report and mentioning the results, conclusions, and recommendations reported.

## Contents

| I | The        | : First Part                    | 4  |
|---|------------|---------------------------------|----|
| 1 | 16fZ       | ndard 191 <sub>E</sub> X Report | 5  |
| _ |            | tures of This Shell             | 6  |
|   | <b>Z.1</b> | Section Heading                 |    |
|   |            | Z.1.1 Subsection                |    |
|   | <b>Z.Z</b> | Tags                            | 6  |
|   | <b>Z.3</b> | Mathematics and Text            | 7  |
|   | <b>Z.4</b> | List Environments               | a  |
|   | <b>2.5</b> | Theorem-Like Environments       | 8  |
| 4 | The        | First Appendix                  | 18 |

# List of Figures

# List of Tables

| Z.i Table caption fext here. | <b>Z.</b> 1 | Table caption text here. |  |
|------------------------------|-------------|--------------------------|--|
|------------------------------|-------------|--------------------------|--|

### Part I

## The First Part

### Chapter 1

## Standard LATEX Report

This document illustrates the appearance of a report created with the shell Standard  $M_{\rm E}X$  Report. The shell contains an abstract.

The standard  $M_E^*X$  shells provide the most general and portable set of document features. You can achieve almost any typesetting effect by beginning with a standard shell and adding  $M_E^*X$  packages as necessary.

### Chapter 2

### Features of This Shell

#### 2.1 Section Heading

Use the section tag for major sections, and the subsection tag for minor sections within a section.

#### Z.1.1 Subsection

This is just some harmless text under a subsection.

#### **Subsubsection**

This is just some harmless text under a subsubsection.

Paragraph This is just some harmless text under a paragraph heading. While using the name paragraph, it is a division heading one level lower than subsubsection.

Subparagraph This is just some harmless text under a subparagraph. The subparagraph is the lowest level division heading, and is typically not recommended to be used. Included below is Table 2.1 to demonstrate cross referencing a table. The table caption will appear in the list of tables, if used. LATEX will position this floating table to best take advantage of the flow of the surrounding text.

#### 2.2 Tags

You can apply the logical markup tag Emphasized.

| Head  | Head  | Head  |
|-------|-------|-------|
| entry | entry | entry |
| entry | entry | entry |
| entry | entry | entry |

Table 2.1: Table caption text here.

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 BLACKBOARDBOLD, CALLIGRAPHIC, and fraftur. 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 Short Quote. This environment is appropriate for a short quotation or a sequence of short quotations.

The only thing we have to fear is fear itself. Franklin D. Roosevelt, Mar. 4. 1933

Ask not what your country can do for you; ask what you can do for your country. John F. Kennedy, Jan. 28. 1961

There is nothing wrong with America that cannot be cured by what is right with America. William J. Bill Clinton, Jan. 21, 1993

The Long 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.

#### 2.3 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  $n\to\infty$ ,  $a_{n,k}\to 0$  for each k, and

 $\gamma_n=\sum_{k=0}^\infty \left(a_{n,k+1}-a_{n,k}\right)^+ o 0.$  Then for each x in C,  $A_nx=\sum_{k=0}^\infty a_{n,k}T^kx$  converges weakly to a fixed point of T .

The numbered equation

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

is automatically numbered as equation 2.1.

#### **2.4** List Environments

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

- 1. List item 1
- Z. List item Z
  - [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.

#### 2.5 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

Case 4 This is a case

Claim 5 This is a claim

Conclusion & This is a conclusion

Condition 7 This is a condition

Conjecture 8 This is a conjecture

Corollary 9 This is a corollary

Criterion 18 This is a criterion

Definition 11 This is a definition

Example 12 This is an example

Exercise 13 This is an exercise

Lemma 14 This is a lemma

Proof. This is the proof of the lemma.

Notation 15 This is notation

Problem 16 This is a problem

Proposition 17 This is a proposition

Remark 18 This is a remark

Summary 19 This is a summary

Theorem 20 This is a theorem

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

### Appendix A

# The First Appendix

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