Jonathan Lewin Online Book

This is the Jonathan Lewin Online Book shell document. This shell uses the style file **jonathan-on-screen-style**.**cst**. Replace this text with the body of your book.

If you modify this document and export it as "Jonathan Lewin Online Book.shl" in the **Shells\Books** directory, it will become your new Jonathan Lewin Analysis Book shell.

The Purpose of This Style

This style is designed for the creation of books that will be read interactive on the computer screen. One of the features of this style is the choice of body text types that it offers. This paragraph is written in standard body text and any hyperlinks created in this paragraph will be <mark style="background:yellow">yellow</mark>.

This paragraph is being written with the Body Text Alt tag. It looks just like body text but hyperlinks in this paragraph will be <mark style="background:lime">green</mark>.

This paragraph is being written with the Body Text Alt tag. It looks just like body text but hyperlinks in this paragraph will be <mark style="background:cyan">bluegreen</mark>.

Special Paragraphs

This document style provides several ways of setting parts of the manuscript off from other parts. Font sizes and background colours combine to produce the special look in each of the **Comment** types of paragraph.

> This paragraph is being written with the Comment 1 tag with some mathematics $\int_0^1 \sqrt{1-x^2}\,dx$. (Shortcut Alt + F1)

This paragraph is being written with the Comment 2 tag with some mathematics $\int_0^1 \sqrt{1-x^2}\,dx$. (Shortcut Alt + F2)

This paragraph is being written with the Comment 3 tag with some mathematics $\int_0^1 \sqrt{1-x^2}\,dx$. (Shortcut Alt + F3)

This paragraph is being written with the Comment 4 tag with some mathematics $\int_0^1 \sqrt{1-x^2}\,dx$.

This paragraph is being written with the Comment 5 tag with some mathematics $\int_0^1 \sqrt{1-x^2}\,dx$.

This is Heading 1 (Shortcut F9) (<mark style="background:yellow">yellow</mark> hyperlinks)

This is Heading 1 Alt1
(Shortcut Alt + F9)
(green hyperlinks)

This is Heading 1 Alt1
(Shortcut Ctrl + Alt F9)
(bluegreen hyperlinks)

This is Heading 2 (Shortcut F11)
(yellow hyperlinks)

Jonathan Lewin is using the style in this shell document to develop future online books. For a previous online book see *An Interactive Introduction to Mathematical Analysis* (use Ctrl+click to follow the link).

This is Heading 2 Alt 1 (Shortcut Alt + F11)
(like Heading 2 but with green hyperlinks)

This is Heading 2 Alt 2 (ShortcutCtrl + Alt + F11)
(like Heading 2 but with bluegreen hyperlinks)

This is Heading 3 (Shortcut F12)
(yellow hyperlinks)

To center a paragraph, place the insertion point within the paragraph and choose Centered from the Section/Body Tag popup list on the Tag toolbar.

This is Heading 3 Alt 1 (Shortcut Alt + F12)
(like Heading 2 but with green hyperlinks)

To set text off like this, type the text, then choose Long Quotation from the Section/Body Tag popup list on the Tag toolbar.

This is Heading 3 Alt 2 (Shortcut Ctrl + Alt + F12)
(like Heading 2 but with bluegreen hyperlinks)

This is a Body Math paragraph. Each time you press the Enter key in Body Math, you enter mathematics mode so that you can perform computations without having to switch to mathematics first. This is convenient for carrying out "scratchpad" computations.

This is Heading 5 (Shortcut F8)
(yellow hyperlinks)

You can apply the logical markup tag *Emphasized,* or ***Strongly Emphasized.***

This is Heading 5 Alt 1 (Shortcut Alt + F8)
(green hyperlinks)

You can apply the visual markup tags **Bold**, *Italics*, Keyboard Input, Sample Text, and **Typed code**.

This is Heading 5 Alt 2 (Shortcut Ctrl + Alt + F8)
(bluegreen hyperlinks)

You can apply the size tags Smallest, Small, Big, Bigger, and Biggest.

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 $\gamma_n = \sum_{k=0}^{\infty}(a_{n,k+1} - a_{n,k})^+ \to 0$. 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

$$u_{tt} - \Delta u + u^5 + u|u|^{p-2} = 0 \text{ in } \mathbf{R}^3 \times [0, \infty[\tag{2.1}$$

Numbered equations must be managed manually.

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.

       This second paragraph under the same list item was created by typing Backspace at the very beginning of the paragraph. character surrounded by parentheses.

    b. Just another list item under a list item.

        i. Third level list item under a list item.

3

       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.

Style Specific Function Key Assignments

The style assigns function keys to the following tags:
- Alt+F1 = Comment 1
- Alt+F2 = Comment 2
- Alt+F3 = Comment 3
- Ctrl+Alt+F5 = Definition Bold
- F9 = Heading 1
- Alt+F9 = Heading 1 Alt1
- Ctrl+Alt+F9 = Heading 1 Alt2
- F11 = Heading 2
- Alt+F11 = Heading 2 Alt1
- Ctrl+Alt+F11 = Heading 2 Alt2
- F12 = Heading 3
- Alt+F12 = Heading 3 Alt1
- Ctrl+Alt+F12 = Heading 3 Alt2
- F8 = Heading 5
- Alt+F8 = Heading 5 Alt1
- Ctrl+Alt+F8 = Heading 5 Alt2