YU HAO WANG XIA

IDENTIFIABILITY OF RESPIRATORY MECHANICS: LIMITATIONS OF SINGLE CYCLE ESTIMATION AND PROPOSAL OF MULTIPLE CYCLE MANEUVERS

São Paulo

2025

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IDENTIFIABILITY OF RESPIRATORY MECHANICS: LIMITATIONS OF SINGLE CYCLE ESTIMATION AND PROPOSAL OF MULTIPLE CYCLE MANEUVERS

Thesis submitted to the University of São Paulo Medical School in partial fulfillment of the requirements for the degree of Doctor in Science.

Concentration Area: Respiratory Sciences

Advisor:

Prof. Dr. Marcelo Britto Passos Amato

São Paulo
2025

Dedicatória

ACKNOWLEDGMENTS

Thanks...

"O Brasil é grande demais para sonharmos pequeno"

-- Ozires Silva

RESUMO

Resumo...

Palavras-Chave – Palavra, Palavra, Palavra, Palavra, Palavra.

ABSTRACT

Abstract...

LIST OF FIGURES

LIST OF TABLES

LIST OF SYMBOLS

Lista de símbolos...

CONTENTS

1 INTRODUCTION

"Frase espirituosa de um autor famoso"

-- Autor famoso

Hello, here is some text without a meaning. This text should show what a printed text will look like at this place. If you read this text, you will get no information. Really? Is there no information? Is there a difference between this text and some nonsense like "Huardest gefburn"? Kjift – not at all! A blind text like this gives you information about the selected font, how the letters are written and an impression of the look. This text should contain all letters of the alphabet and it should be written in of the original language. There is no need for special content, but the length of words should match the language.

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testing bibliography [1]

2 HEADING ON LEVEL 0 (CHAPTER)

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2.1 Heading on Level 1 (section)

Hello, here is some text without a meaning. This text should show what a printed text will look like at this place. If you read this text, you will get no information. Really? Is there no information? Is there a difference between this text and some nonsense like "Huardest gefburn"? Kjift – not at all! A blind text like this gives you information about the selected font, how the letters are written and an impression of the look. This text should contain all letters of the alphabet and it should be written in of the original language. There is no need for special content, but the length of words should match the language.

2.1.1 Heading on Level 2 (subsection)

Hello, here is some text without a meaning. This text should show what a printed text will look like at this place. If you read this text, you will get no information. Really? Is there no information? Is there a difference between this text and some nonsense like "Huardest gefburn"? Kjift – not at all! A blind text like this gives you information about the selected font, how the letters are written and an impression of the look. This text should contain all letters of the alphabet and it should be written in of the original language. There is no need for special content, but the length of words should match the language.

2.1.1.1   Heading on Level 3 (subsubsection)

Hello, here is some text without a meaning. This text should show what a printed text will look like at this place. If you read this text, you will get no information. Really? Is there no information? Is there a difference between this text and some nonsense like "Huardest gefburn"? Kjift – not at all! A blind text like this gives you information about the selected font, how the letters are written and an impression of the look. This text should contain all letters of the alphabet and it should be written in of the original language. There is no need for special content, but the length of words should match the language.

Heading on Level 4 (paragraph)   Hello, here is some text without a meaning. This text should show what a printed text will look like at this place. If you read this text, you will get no information. Really? Is there no information? Is there a difference between this text and some nonsense like "Huardest gefburn"? Kjift – not at all! A blind text like this gives you information about the selected font, how the letters are written and an impression of the look. This text should contain all letters of the alphabet and it should be written in of the original language. There is no need for special content, but the length of words should match the language.

2.2   Lists

2.2.1   Example for list (itemize)

- First item in a list

- Second item in a list

- Third item in a list

- Fourth item in a list

- Fifth item in a list

2.2.1.1   Example for list (4*itemize)

- First item in a list

  - First item in a list

    * First item in a list

· First item in a list

  · Second item in a list

* Second item in a list

– Second item in a list

• Second item in a list

2.2.2 Example for list (enumerate)

1. First item in a list

2. Second item in a list

3. Third item in a list

4. Fourth item in a list

5. Fifth item in a list

2.2.2.1 Example for list (4*enumerate)

1. First item in a list

   (a) First item in a list

      i. First item in a list

         A. First item in a list

         B. Second item in a list

      ii. Second item in a list

   (b) Second item in a list

2. Second item in a list

2.2.3 Example for list (description)

First item in a list

Second item in a list

Third item in a list

Fourth item in a list

Fifth item in a list

2.2.3.1 Example for list (4*description)

First item in a list

> **First** item in a list
>
> > **First** item in a list
> >
> > > **First** item in a list
> > >
> > > **Second** item in a list
> >
> > **Second** item in a list
>
> **Second** item in a list

Second item in a list

REFERENCES

[1] ASSENMACHER, H. et al. Panda: supporting distributed programming in L++. In: EURO-PEAN CONFERENCE ON OBJECT-ORIENTED PROGRAMMING, 7., 1993, Kaiserslautern. Berlin: Springer, 1993. p. 361–383. (Lecture Notes in Computer Science, v. 707).

APPENDIX A

APPENDIX B – BETA

ANNEX A – ALPHA

ANNEX B