

Microbial communities through the lens of data integration, knowledge aggregation and metabolic networks analysis

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Thesis submitted for the degree of, optie Elektronica en geïntegreerde schakelingen

Promotor

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Preface

I would like to thank everybody who kept me busy the last year, especially my promoter and my assistants. I would also like to thank the jury for reading the text. My sincere gratitude also goes to my wive and the rest of my family.

 $Har is\ Zafe iropoulos$

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Abstract

The abstract environment contains a more extensive overview of the work. But it should be limited to one page.

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Samenvatting

In dit abstract environment wordt een al dan niet uitgebreide Nederlandse samenvatting van het werk gegeven. Wanneer de tekst voor een Nederlandstalige master in het Engels wordt geschreven, wordt hier normaal een uitgebreide samenvatting verwacht, bijvoorbeeld een tiental bladzijden.

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List of Figures and Tables

List of Figures

List of Tables

List of Abbreviations and Symbols

Abbreviations

LoG Laplacian-of-Gaussian MSE Mean Square error

PSNR Peak Signal-to-Noise ratio

Symbols

42 "The Answer to the Ultimate Question of Life, the Universe, and Everything" according to [1]

c Speed of light

E Energy m Mass

 π The number pi

Chapter 1

Introduction

The first contains a general introduction to the work. The goals are defined and the modus operandi is explained.

1.1 Lorem Ipsum 4–5

Quisque ullamcorper placerat ipsum. Cras nibh. Morbi vel justo vitae lacus tincidunt ultrices. Lorem ipsum dolor sit amet, consectetuer adipiscing elit. In hac habitasse platea dictumst. Integer tempus convallis augue. Etiam facilisis. Nunc elementum fermentum wisi. Aenean placerat. Ut imperdiet, enim sed gravida sollicitudin, felis odio placerat quam, ac pulvinar elit purus eget enim. Nunc vitae tortor. Proin tempus nibh sit amet nisl. Vivamus quis tortor vitae risus porta vehicula.

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1.2 Lorem Ipsum 6–7

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1. Introduction

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Chapter 2

Microbial diversity: the who

A chapter is a logical unit. It normally starts with an introduction, which you are reading now. The last topic of the chapter holds the conclusion.

2.1

First comes the introduction to this topic.

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2.1.1 An item

Please don't abuse enumerations: short enumerations shouldn't use "itemize" or "enumerate" environments. So never write:

The Eiffel tower has three floors:

- the first one;
- the second one;
- the third one.

But write:

The Eiffel tower has three floors: the first one, the second one, and the third one.

2.2 A Second Topic

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2.2.1 Another item

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2.3 Conclusion

The final section of the chapter gives an overview of the important results of this chapter. This implies that the introductory chapter and the concluding chapter don't need a conclusion.

Nunc sed pede. Praesent vitae lectus. Praesent neque justo, vehicula eget, interdum id, facilisis et, nibh. Phasellus at purus et libero lacinia dictum. Fusce aliquet. Nulla eu ante placerat leo semper dictum. Mauris metus. Curabitur lobortis. Curabitur sollicitudin hendrerit nunc. Donec ultrices lacus id ipsum.

Chapter 3

Metabolic networks

3.1 The First Topic of this Chapter

3.1.1 Item 1

Sub-item 1

The relationship between genotype and phenotype is fundamental to biology. Many levels of control are introduced when moving from one to the other. Systems biology aims at deciphering "the strategy" both at the cell and at higher levels of organization, in case of multicell species, that enables organisms to produce orderly adaptive behavior in the face of widely varying genetic and environmental conditions ([3]); the term "strategy" is used as per [2]. Systems biology approaches aim at interpreting how a system's properties emerge; from the cell to the community level.

Sub-item 2

3.1.2 Item 2

3.2 The Second Topic

3.3 Conclusion

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3. Metabolic networks

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Appendices

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PhD disseration

Student: Haris Zafeiropoulos

Titel: Microbial communities through the lens of data integration, knowledge aggregation and metabolic networks analysis

Nederlandse titel: Beste masterproef ooit al geschreven

UDC: 621.3

Korte inhoud:

Hier komt een heel bondig abstract van hooguit 500 woorden. IATEX commando's mogen hier gebruikt worden. Blanco lijnen (of het commando \par) zijn wel niet toegelaten!

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Thesis submitted for the degree of, optie Elektronica en geïntegreerde schakelingen

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