

---

# Relational Reasoning (Relationel ræsonnement)

Mathias Pedersen, 201808137

---

Bachelor Report (15 ECTS) in Computer Science

Advisor: Amin Timany

Department of Computer Science, Aarhus University

September 2021



# Abstract

► in English... ◄

*Mathias Pedersen,  
Aarhus, September 2021.*



# Contents

<b>Abstract</b>	<b>iii</b>
<b>1 Introduction</b>	<b>1</b>
<b>2 Definition of Language</b>	<b>3</b>
<b>3 Contextual Equivalence</b>	<b>5</b>
<b>4 Logical Relations for Contextual Equivalence</b>	<b>7</b>
<b>5 Examples of Application of Contextual Equivalence</b>	<b>9</b>
<b>6 Comparison to Other Work and Ideas for Future Work</b>	<b>11</b>
<b>7 Conclusion</b>	<b>13</b>
<b>Acknowledgments</b>	<b>15</b>
<b>Bibliography</b>	<b>17</b>
<b>A The Technical Details</b>	<b>19</b>



# Chapter 1

## Introduction

►motivate and explain the problem to be addressed◄

►example of a citation: [1]◄ ►get your bibtex entries from <https://dblp.org/>◄





## **Chapter 2**

# **Definition of Language**

►draft◄



## Chapter 3

# Contextual Equivalence

►draft◄



## **Chapter 4**

# **Logical Relations for Contextual Equivalence**

►draft◄



## **Chapter 5**

# **Examples of Application of Contextual Equivalence**

►draft◄





## **Chapter 6**

# **Comparison to Other Work and Ideas for Future Work**

►draft◄



## Chapter 7

# Conclusion

►conclude on the problem statement from the introduction◄



# Acknowledgments





# Bibliography

- [1] Aske Simon Christensen, Anders Møller, and Michael I. Schwartzbach. Precise analysis of string expressions. In Radhia Cousot, editor, *Static Analysis, 10th International Symposium, SAS 2003, San Diego, CA, USA, June 11-13, 2003, Proceedings*, volume 2694 of *Lecture Notes in Computer Science*, pages 1–18. Springer, 2003.





## **Appendix A**

# **The Technical Details**

